



GENERAL PLAN

CITY OF CUPERTINO

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GENERAL PLAN

CITY OF CUPERTINO

JULY 1979

2

LAND USE/COMMUNITY CHARACTER

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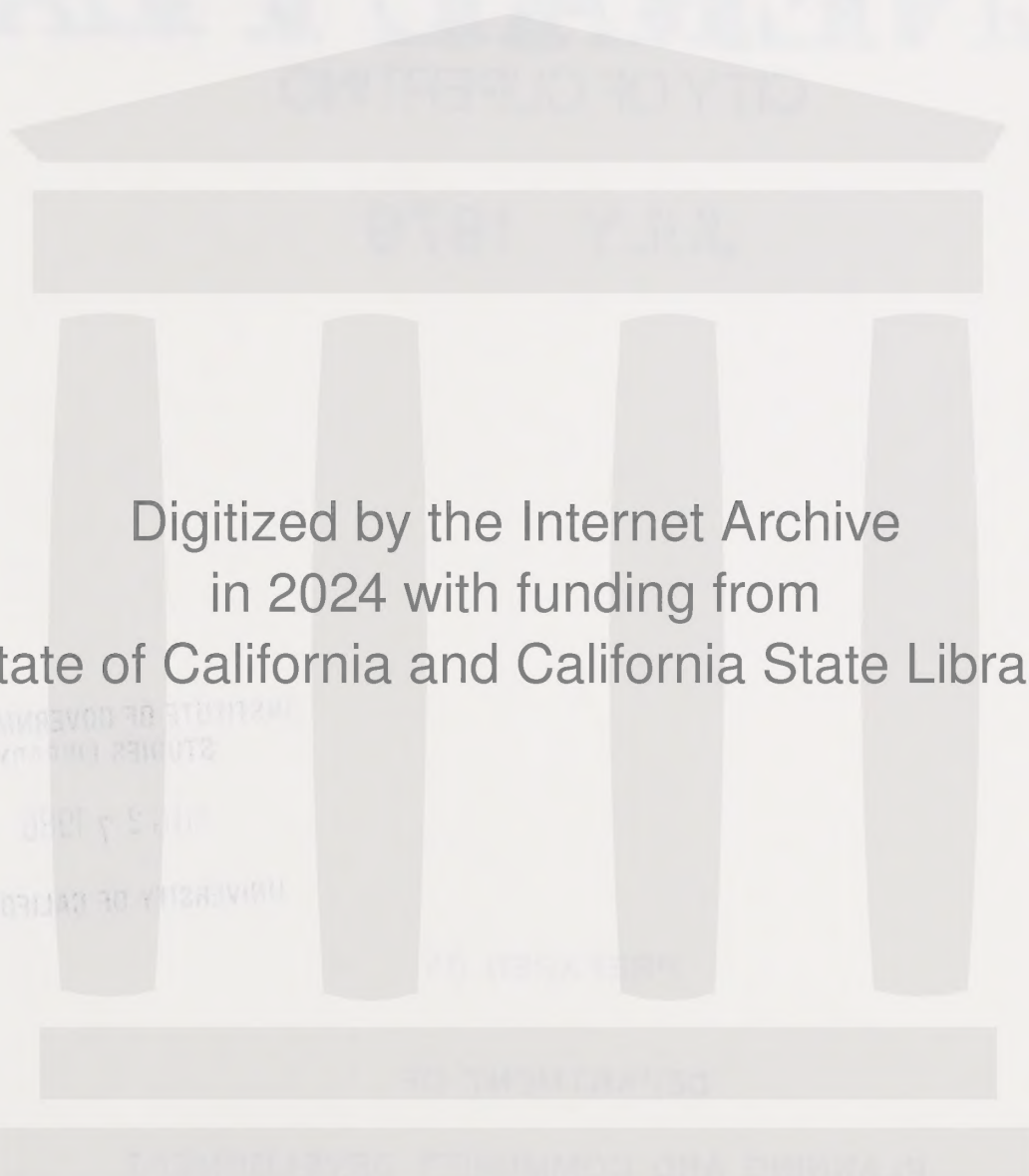
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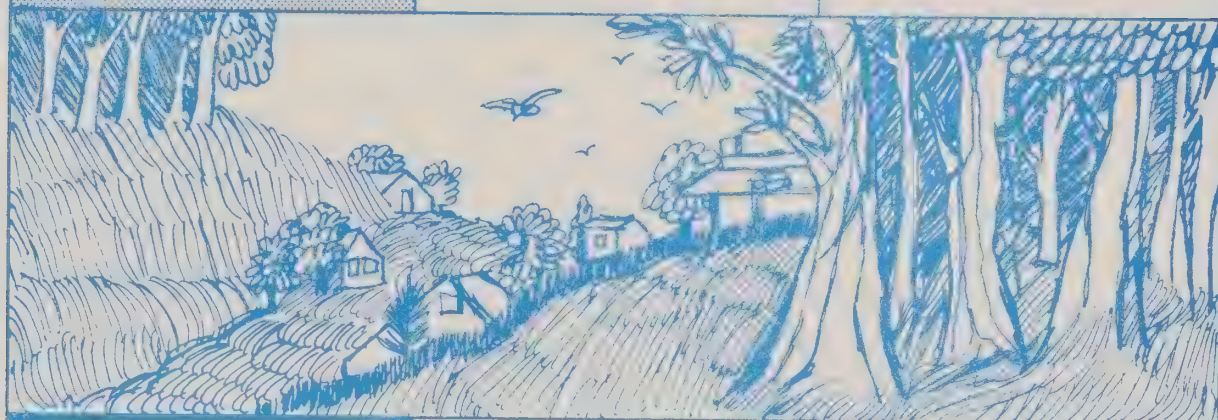
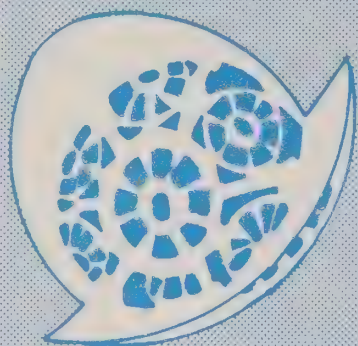
APPENDIX

- A Hillside Slope Density Formula - June 1976 (Adopted by reference)*
- B Stevens Creek Boulevard Plan Line Action Plan - February 1978 (Adopted by reference)*
- C General Plan Resolutions (List Attached)
- D Bibliography (Attached)

LAND USE MAP Inside Back Cover

* Appendix items A and B are available at the Cupertino Planning Department

NOTE: Environmental Documents are available at the Cupertino Planning Department



The City of Cupertino has the difficult task of planning for the needs of a diversity of individuals and groups which sometimes have a series of conflicting goals and objectives. The task of local government in Cupertino, therefore, is to develop a long-range set of objectives for the City's physical and social development that best meets the needs of its citizens. This task is best accomplished through a Comprehensive General Plan containing a series of sub-plans or elements which are listed below:

Cupertino General Plan Elements

Land Use Community Character
Housing
Circulation
Environmental Resources
Public Health and Safety

Community Setting

Cupertino is strategically located within the metropolitan peninsula of the San Francisco Bay Region. Incorporated in 1955 as the 13th City in Santa Clara County, the community has expanded its role and influence in intergovernmental relations as land uses have shifted from an agricultural emphasis to a broader base of urban activities.



Impetus to create the City of Cupertino's original boundaries was provided by a nucleus of local citizens concerned that attempts by the Cities of Sunnyvale, Santa Clara, and San Jose to incorporate the area would submerge its distinctive qualities and diminish the prerogatives of home-rule. Thus, it may be said that "community character" has been an integral aspect of the City of Cupertino since its inception.

Land Form

Most of the community is on level ground which rises gently to the west. The land begins to incline more swiftly at the channel of Stevens Creek, forming a short plateau in the vicinity of Foothill Boulevard. The plateau area is terminated at the foot of the steep Montebello system of ridges which extend along the west and south edges of the City creating a dramatic amphitheater backdrop to the Valley Floor.

Built Form

Generally speaking, development activity in Cupertino through the late 1950's to late 1960's concentrated on residential construction. Since the mid 1970's, however, the City has experienced a dynamic expansion of new employment generating facilities with the growth of Vallco Industrial Park, North De Anza Boulevard Industrial Park, and the popular regional shopping mall. Most of the City's newest and most intense "urban" building activity has occurred at the east and north-central areas of town, while the southerly and westerly areas have generally retained a more moderate residential character and a greater proportion of older, well-established neighborhoods.

Geographical Boundary of the Plan

Figure 1-A illustrates the planning area within the City's corporate limits and pockets of land currently within Santa Clara County jurisdiction. Areas within County jurisdiction are included in the planning area boundary because City of Cupertino land use decisions directly and indirectly affect County residents. Furthermore, State legislation encourages municipalities to plan all areas within its "Sphere of Influence". General Plan decisions and subsequent zoning actions will not have legal effect on property owners in County jurisdiction unless and until his or her property is annexed into the City. The implementation section of the General Plan describes City policy regarding annexation.

The Planning Process

The Comprehensive General Plan evolved from an initial physical land use plan adopted in 1964. Each succeeding amendment to the plan added depth in terms of content and implementation technique.

The planning process consists of four basic steps: The initial

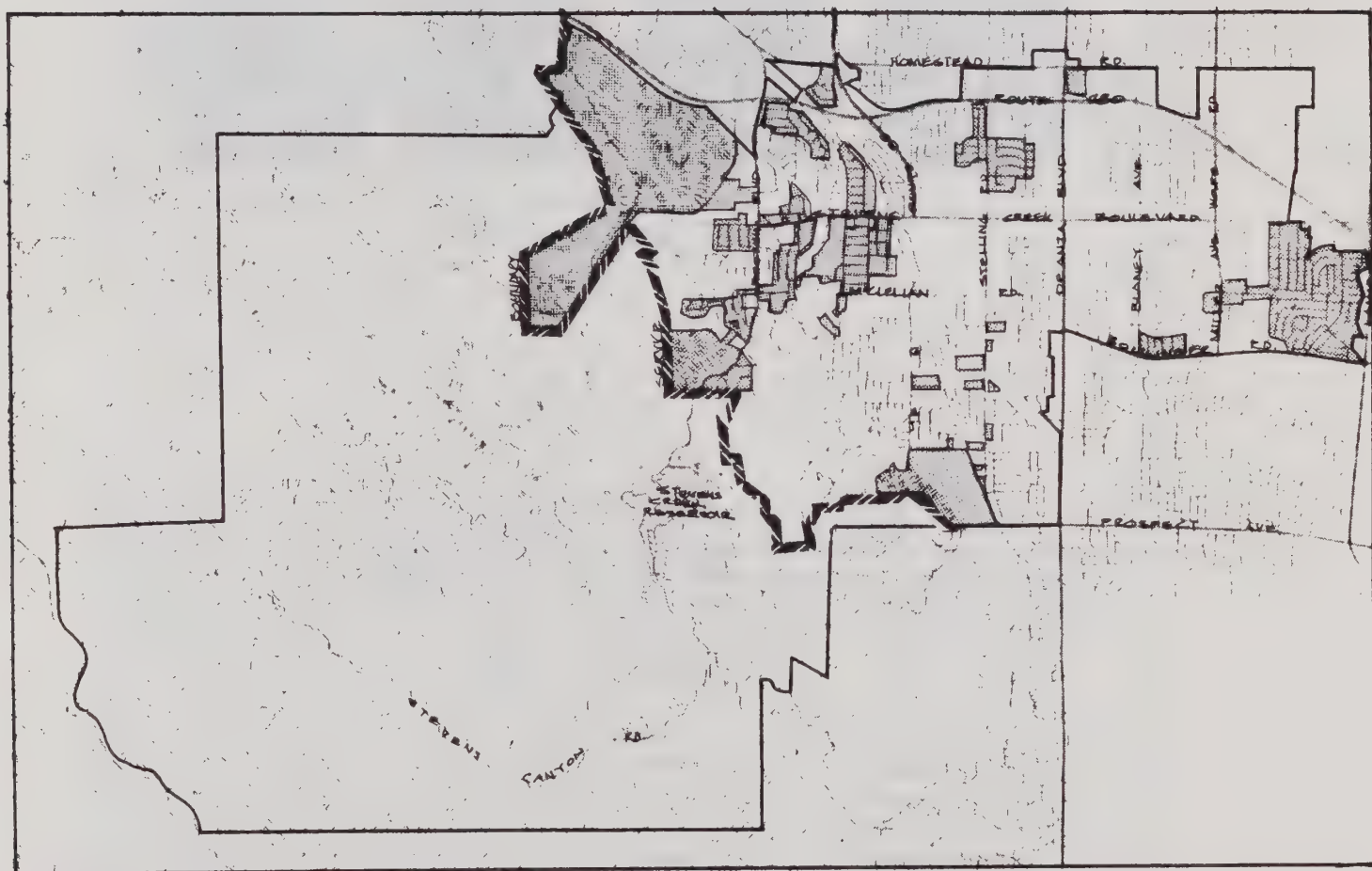





FIGURE 1-A
PLANNING AREA

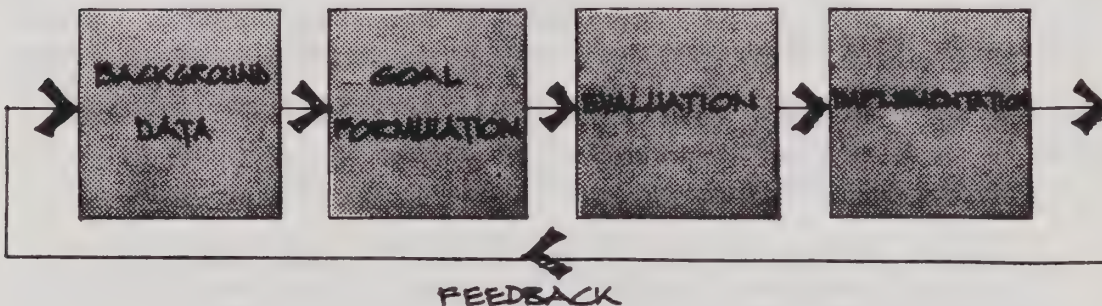
-  UNINCORPORATED AREAS
-  SPHERE OF INFLUENCE
-  URBAN SERVICE AREA

CITY of CUPERTINO · comprehensive plan



step involves data collection; the second step involves the development of alternative goals and objectives; the third step involves the evaluation of alternatives; and the fourth involves the development of an action plan to implement the favored alternative.

Figure 1-B
General Plan Process



The goal formulation phase requires a high degree of public participation by the citizens in general, special interest groups and elected and appointed officials. The goals and objectives contained in the General Plan were developed by a Citizens Goals Committee over a two-year period ending in 1972. The 1972 Goals and Objectives are incorporated into the plan.

The planning process must remain fluid in order to compensate for social and economic change which is beyond the control of local government. The needed flexibility is achieved by an annual plan review process which enables the Planning Commission to test the plan objectives based upon new information. If economic and social changes are significant, a major overhaul of the plan will be necessary.

External Factors that Influence the Plan

The private marketplace plays a dominant role in the use of land. A public objective to increase the commercial shopping base or the community's industrial base can only be implemented if the private sector is willing to invest within the community. A commercial or industrial investor will weigh his or her decision based upon criteria which may or may not be under control of the local jurisdiction. A commercial investor, for example, is interested in a market analysis which shows an adequate future population level, an adequate household income factor, and a favorable estimate of competition from other commercial centers within and outside of the local community. In another example, The City Plan may designate a specific property for high density residential use which may not be economically feasible because of local lifestyle

preferences. The point of the two examples, is to illustrate that while the City has a great deal of latitude in the control of land use, land use decisions must be realistic relative to market forces. The dilemma facing the City of Cupertino and other jurisdictions is a desired land use pattern that may be feasible in the long term but infeasible in the short term (1-5 years). The dilemma occurs because of the inability of a landowner to retain land for long periods. Holding costs related to taxes and lost income opportunities tend to make immediate development more economical.

In addition to marketplace constraints, the Cupertino General Plan is heavily influenced by policies of other local governments, and by actions of other agencies within the governmental hierarchy.

The heavy employment base in north Santa Clara County coupled with the extreme concentration of housing in southern sections of San Jose cause a massive intra-County commute which directly impacts Cupertino by causing high levels of traffic congestion and air pollution.

Regional agencies and local special districts have the greatest impact on the City's planning abilities. MidPeninsula Regional Open Space District's policy to acquire significant acreage in the lower foothills adjacent to the westerly City limit has, in effect, determined the City's ultimate growth boundary. While the acquisition of open space is favored by the majority of Cupertino citizens, the concept of having a narrowly-focused special purpose district decide the City's growth limit and therefore indirectly affect Cupertino's public service planning prerogatives may not be positive. The independent actions of the Cupertino School District Board relative to the closure of schools plays a major role in the City's park planning efforts, and more subjectively, affects the social organization of residential neighborhoods designed around the neighborhood school concept. On a regional level, the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) have prepared a joint transportation plan for Santa Clara County which directly influences the modes and service level of transportation that the City can expect in the future and, therefore, the intensity of land use permitted on properties within its jurisdiction. The Bay Conservation and Development Commission requires that each County develop a Water Waste Management Plan which determines the location and extent of future waste disposal sites. The San Francisco Bay Area Air Pollution District determines the extent to which industrial firms may emit pollutants into the air, therefore precluding certain industrial activities from locating in the City.

Each of the above examples demonstrates the degree to which the City of Cupertino's planning efforts are constrained by other governmental agency decisions.

Key Assumptions of the General Plan

The goals, policies and programs of the General Plan are based

not only upon the marketplace and governmental constraints delineated above but also based upon key demographic, economic and social (lifestyle) trends. Key assumptions regarding those trends are delineated below. Any major change perceived in these trends may require revision of the General Plan. The possibility of fast-moving changes and trends is one of the major reasons why the plan must be reviewed on an annual basis.

Demographic Assumptions

The fertility rate within the San Francisco Bay Area Region (number of children a woman will bear during child-bearing years) will decrease from approximately 2.1 in 1970 to approximately 1.8 in the year 2000. New household formations are increasing rapidly as "baby boom" children of the post World War II era begin to form families, and as greater numbers of women assume the role as heads of households. These trends suggest a continuing high demand for new dwellings that will be occupied by smaller-sized households. The dual trend may result in a demand for smaller-sized dwelling units.

The household size factor is the primary mechanism used by the City to estimate future population levels within the community. Figure 1-C identifies the 1975 household sizes and projected 1990 household sizes for various sub-neighborhoods within the community. The household sizes and the resultant population estimates will play a major role in decisions involving the provision of services for various areas within the community. For example, neighborhood park planning depends primarily on the future population level estimates.

FIGURE 1-C

PLANNING AREA LOCATIONS

HOUSEHOLD SIZES BY PLANNING AREA

| | 1975 | | 1977 POP. | 1990 | | POP. |
|--------|------|------|--------------------|------|------|--------------------|
| | SF | MF | | SF | MF | |
| A | 2.97 | 1.89 | 2005 | 2.50 | 1.59 | 2100 |
| B | 3.82 | 2.25 | 5185 | 2.95 | 1.90 | 4335 |
| C | 3.82 | 2.25 | 170 | 2.95 | 1.90 | 1535 |
| E | 3.33 | 2.45 | 6620 | 2.75 | 2.05 | 7035 |
| F | 3.40 | 1.88 | 6430 | 2.71 | 1.53 | 6160 |
| G | 3.56 | 1.95 | 885 | 2.83 | 1.59 | 720 |
| H | 3.57 | 2.24 | 4625 | 2.98 | 1.90 | 4265 |
| I | 3.65 | 2.49 | 5460 | 2.99 | 2.32 | 6045 |
| J | 3.16 | 1.97 | 1795 | 2.65 | 1.66 | 1390 |
| K | 3.16 | 1.97 | 4455 | 2.65 | 1.66 | 3735 |
| L | 3.63 | 2.34 | 4920 | 2.95 | 2.34 | 5680 |
| M | 3.40 | 1.37 | 5 | 2.85 | 1.16 | 5 |
| N | 3.82 | 2.25 | 0 | 2.95 | 1.90 | 510 |
| O | 3.51 | 2.21 | 1645 | 2.95 | 1.90 | 1635 |
| P | 3.51 | 2.21 | 3075 | 2.95 | 1.90 | 1745 |
| Totals | | | 47300 (rounded) | | | 48100 (rounded) |

S.F. - Single-family

M.F. - Multiple-family (Apartments, Condominiums)

Source: Santa Clara County Planning Department Traffic Analysis Zone (TAZ), which was based upon the 1975 County Census.

Age Distribution

There will be dramatic shift in proportions of age groups within the community by 1990. Pre-teen and teenage populations will decline while there will be a dramatic increase in the number of individuals in the adult and seniors category. Table 1-A provides the numerical and percentage range in the numbers of individuals within four age group categories. Again, the age distribution within the community will play a major role in the allocation of resources to meet certain specific needs for that age group.

Table 1-A

| 1975 & 1990 AGE DISTRIBUTION FOR URBAN SERVICE AREA | | | | |
|---|--------|--------|--------|-------|
| AGE GROUP | 1975 | | 1990 | |
| 0-9 | 4,520 | 13.95% | 3,521 | 9.4% |
| 10-19 | 6,934 | 21.4% | 5,174 | 13.9% |
| 20-64 | 19,173 | 59.2% | 25,292 | 68.1% |
| 65+ | 1,681 | 5.19% | 3,153 | 8.9% |
| TOTALS | 32,387 | 100% | 37,140 | 100% |
| * BOUNDARY TRANSFER AREA NOT INCLUDED | | | | |

Economic Assumptions

In the terminology of large scale economic systems such as a city, county, or region, economists identify two broad categories of employment: "basic"- referring to jobs and workers producing goods and services which are exported to markets outside the city or region under study, and "service"- employers and employees whose efforts serve local needs only. Basic employment is often accepted as a key indicator of an economic system's wealth and vitality.

Basic and service employment within the City of Cupertino will increase from approximately 19,350 in 1977 to approximately 29,000 by 1990. That projection is based upon multiplying current employee-per-acre figures for lands planned for basic industrial employment and lands planned for service-oriented commercial employment.

It is entirely reasonable to assume that the employment increase is possible, given the strong growth of the electronics (basic) industry in Santa Clara Valley. It is not clear at this time whether the housing shortages and increased level of congestion will continue to make Northern Santa Clara Valley attractive to industrial development. However, there appears to be a trend involving the movement of more labor-intensive operations within the electronics industry to areas having less expensive labor. There is a strong indication, however, that the research and development segments of existing firms and newer sophisticated electronics industries that require skilled people will continue to be

attracted to the area. The level of skill and professionalism of the future labor force is important in terms of anticipating future housing needs in Cupertino, and may necessitate future rethinking of housing policies to reflect changes in housing demand as a result of change of income levels of employees.

An economic study prepared by a private consultant predicts that by 1990 there will be a theoretical demand for approximately 180,000 sq. ft. of comparison shopping retail space, consisting of department store, apparel, specialty, fast-foods, and personal services.¹⁻¹ Using a factor of approximately 10,000 sq. ft. of commercial area-per-acre of land, the demand for comparison and specialty shopping will be limited to around 18 acres of land. There is room for expansion of highway-oriented specialty commercial and office development.

Lifestyle Trends

It is assumed that a strong preference for low-density home ownership and transportation by private automobiles will continue to reinforce the suburban character of Cupertino. However, a combination of factors related to rapidly increasing land cost, decreasing fuel availability, and family sizes, may require a shift to higher densities and mass transit.

Assumptions Affecting Provision of Public Services

Due to the ownership pattern and intended use of the properties surrounding the City to the south and west, the Plan assumes that the westerly and southerly Urban Service Area boundary will not be expanded in the foreseeable future.

Also, the Plan assumes that there will be no major economic changes that will significantly alter the ability of any major service provider to fulfill their function. For example, a disruption of the flow of crude oil might limit the ability of private utility companies to provide services. Finally, the Plan assumes that the present government finance mechanisms will not be limited to a point where City levels of government have severe difficulty providing essential services.

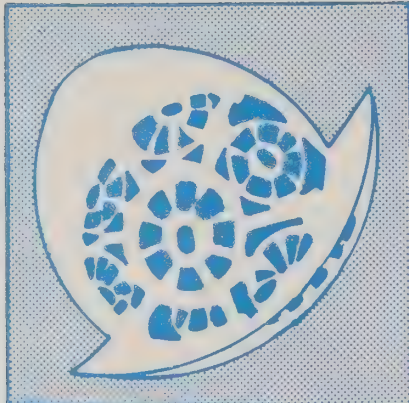
Major Proposals

The Cupertino Comprehensive Plan will establish the primary direction of the community through implementation of these primary goals:

1. Guide land use activities and urban design in a manner to create a community focal point and to create a more pleasing environment, particularly in commercial shopping areas adjacent to Stevens Creek Boulevard and North De Anza Boulevard.

1-1. Economic Evaluation of Proposed Development Alternatives, by Williams, Kuebelbeck and Associates, January, 1978.

2. Reduce the negative effect of automobile traffic on the quality of life throughout the community, with particular attention to residential neighborhoods.
3. Preserve the quality of the existing residential neighborhoods and increase residential dwelling unit densities within the central area of the community to provide greater opportunity for housing of employees attracted by the City's industrial and commercial job market.
4. Protect and enhance the unique scenic, recreation, and vegetative resources within the City's hillsides and natural streambeds.
5. Regulate development in a manner to reduce risk of life and property resulting from flooding, fire, geologic instability and earthquakes.
6. Create more effective government through greater efficiency in the provision of services and through encouraging where possible a greater degree of self-reliance relative to the provision of services.



2

LAND USE / COMMUNITY CHARACTER

Objectives

The traditional purpose of land use planning is to arrange activities within the community, to achieve harmony between dissimilar uses and protect public health. Communities have more recently stressed evaluating economic benefit in the form of increased property value for the private sector, profit potential for the business and manufacturing sector, and a strong tax base for the operation of government and schools.

In all cases, the material discussed in this Element is representative of land use planning approaches already established for this community through past General Plan Policy, or which have evolved through the incremental decisionmaking process of the City's various regulatory commissions. Accordingly, the content of this Element is not intended necessarily to break new ground, but rather to consolidate into a single document, existing written and unwritten land use policies.

The Land Use Element policies culminate all other elements of the General Plan and supply the basic direction which other principles of public policy must adhere to. For example, the objective to increase the supply and variety of units available in the City is directly related to constraints on the density of residential uses permitted in the Land Use Element. Organization of the transportation network in the Circulation Element must embrace the principles of site accessibility and scale of development intensity prescribed in the Land Use document. This Element, then, may be viewed as the "umbrella", under which other aspects of the Comprehensive General Plan are unified and against which the policies advocated are tested for logic and consistency.

Community Character

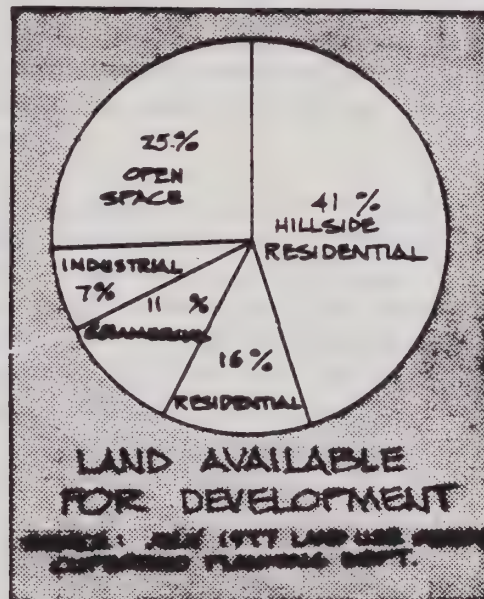
The citizens' appreciation of their community is often correlated with its physical appearance, and how well it is organized for their use and enjoyment.

It is the conviction of the City Council that Cupertino has a tangible and particular community character. The term "community character", in the context of Cupertino's General Plan program, refers to a physical setting and visual image which causes the City to stand apart from its neighboring jurisdictions. This character contributes to the quality of life and sense of place enjoyed by residents, commerce and industry. Accordingly, the overall purpose and objective of this Element is to assist public and private efforts to maintain and enhance Cupertino's community character. Application of design policies and principles intended to refine our present image, avoidance of the visual contradictions resulting from unguided development practices, and protection of irreplaceable physical resources are methods to be employed.

The Issues

The City of Cupertino was incorporated in 1955. Since incorporation the processes of physical growth have accelerated to the extent that the community may be considered "fully developed". The urban transportation network reflects an advanced state of completion, and the jurisdictional sphere of influence of Cupertino is fairly well settled.

Figure 2-A



Most of the City's future physical expansion will occur on the randomly scattered inventory of vacant infilling sites, the development of which will of necessity reflect the character and intensity of the established neighborhoods in which they are situated.

The foregoing discussion might argue for reducing the priority of future land use planning in the overall context of local activity. The issues which affect the allocation and usage of land within Cupertino are not strictly confined to the City's geographic or political boundaries. Countywide and regional urbanization phenomena, and local concerns, will continue to influence the land use/community character decision-making process.

The following discussion of generalized issues will provide a context for understanding the specific recommendations and policies discussed in Section II of this Element.

A. An Identifiable City Center: Paradoxically, the Town Center/Crossroads area of the community which is the geographical and historical center of Cupertino, remains

in an undeveloped state relative to outlying properties. This situation presents a unique opportunity to create an identifiable "downtown" at the very heart of the urban pattern, in lieu of continuing the trend toward low-profile, low-intensity uses.

B. Regional Distribution of Jobs and Housing: Incremental development activity in Santa Clara County has polarized the overall distribution of land uses. The North County cities have created an overwhelming concentration of employment generating activities, while the southern part of the County has provided most of the housing. The process of moving tens of thousands of individuals each day between these two extremes produces congestion on major arterials which is beginning to spill over into local streets and cause physical divisiveness within neighborhoods.

C. Urban Fiscal Balance: One of the stated objectives of any governmental entity is to provide a reasonable level of public service by ensuring that the land use mix will generate a supportive revenue base, and that the development pattern is arranged in a manner to provide efficient servicing. Fiscal zoning priorities may conflict with other community objectives such as provision of housing for all income levels, and provision of non-emergency municipal services such as parks, recreation activities and library.

D. Accelerated Housing Demand: The City will be faced with the challenge of meeting the needs of all income levels of the community with regard to housing. The private market place will probably continue to provide expensive large lot detached single-family homes at the expense of other residential development forms, thus restricting the locational opportunities of households and lifestyles which may be better served by rental or cluster type housing.

E. Environmental Management: Continued high demand for developable land may threaten the unique natural and visual resource of the community in the absence of fair but firm restrictions to protect the public interest, health, and safety. Unique vistas presented by the wooded hillside slopes of the Montebello Ridge system provide a green backdrop to the City; the riparian environment of Stevens Creek Flood Plain, and significant mature specimen trees throughout the City must be carefully assimilated into the urban context.

F. Human Comfort/Community Diversification: Anticipated increases in traffic congestion, and higher residential densities will place an additional burden on the public sector to ensure that the physiological and psychological health of Cupertino residents is protected from the intrusive impacts of urbanization. Balanced opportunity must be provided for social interaction and personal privacy, both within private living spaces and within the community at large. Equally important, the City must offer a variety of educational, entertainment and cultural experiences available at various times throughout the day to ensure

a continuous vitality to the community's character.

Policies

Goal A: Utilize the City's limited supply of land to accommodate adequate space for a full range of human activity.

LAND USE INTENSITY

The type of families or households attracted to live in a city is directly correlated with the availability of housing in that community. The Cupertino Housing Element contains numerous references to relationship of population diversity and community character as a function of the City's housing stock. The Element indicates that, if left unchecked, the current trend of the private market to provide low-density, high-cost homes to the exclusion of higher density project will ultimately dissuade households with other interesting lifestyles not served by single-family detached homes from locating in, and adding to the vitality of Cupertino.

Policy 2-1: The Land Use Plan for Cupertino shall provide for a full-range of residential dwelling unit density and tenure type, including rental apartments and other high-density types of housing.

Housing Element
Goal B
page 3-21
Policy 3-5

Strategy

1. Encourage conversion of designated commercial lands to residential uses, subject to appropriate consideration of design and existing neighborhood character, and consideration of municipal services and utilities.
2. Encourage development of residential properties at the "upper limit" of the permitted dwelling unit intensity range.
3. Permit residential development at densities which exceed planned maximums if such development meets a special communitywide social goal and the increase in density will not adversely affect the traffic-carrying capacity of the local street network, nor adversely alter neighborhood character.

page 3-20
Policy 3-1

page 3-21
Policy 3-3
3-4

The degrees of activity, scale, and formality present in Cupertino are a result of conscious planning decisions. Differences in lifestyle, product preference, and chosen mode of travel influence the type of services an individual will seek within the community. A neighborhood park or convenience store may be adequate at a given moment to serve a particular need. These centers can provide an informal gathering place for inter-neighborhood association and can, if located conveniently, reduce the need for vehicle trips and additional congestion of the street network. At other times, a resident may wish to take advantage of a wider selection of merchandise in a Citywide or regional shopping center, or to obtain medical/dental or professional services within a comprehensive complex.

VALLCO FASHION PARK



A community may exhibit a lively countenance during daylight hours only to appear deserted and uninviting after the working population leaves for the day. A truly successful community character is one which displays vitality during its evening hours, assuring visitor and resident alike that they are welcome in this community even after the day's work is concluded.



FLINT CENTER
DE ANZA COLLEGE

Cupertino is fortunate to have the Flint Center for the Performing Arts at De Anza College Campus as a cultural resource; and Vallco Regional Fashion Park to provide a pleasant safe

gathering point to explore a multitude of activity resources during the early evening or weekend, as well as daytime hours.

Policy 2-2: The Comprehensive Plan for Cupertino shall continue to provide adequate allocation of land area to serve the diverse needs of the community for employment, shopping, entertainment, cultural, health care, and personal service.

Strategy

1. Provide for a regional employment and shopping node within the Vallco Park planning area. The Vallco Park Construction Phasing Memo (as amended)²⁻¹ shall regulate the timing of development within Vallco Park commensurate with transportation improvements.
2. Public open space nodes within individual neighborhoods should be linked visually and physically to their surroundings to facilitate pedestrian and bicycle access and to help defeat the "barrier" effect of travelways.
3. Encourage the economic vitality of existing neighborhood serving retailing uses through selective zoning of new centers, and through careful definition of permissible uses.
4. The City shall encourage diverse activities, including evening hour services for entertainment, cultural and educational pursuits.

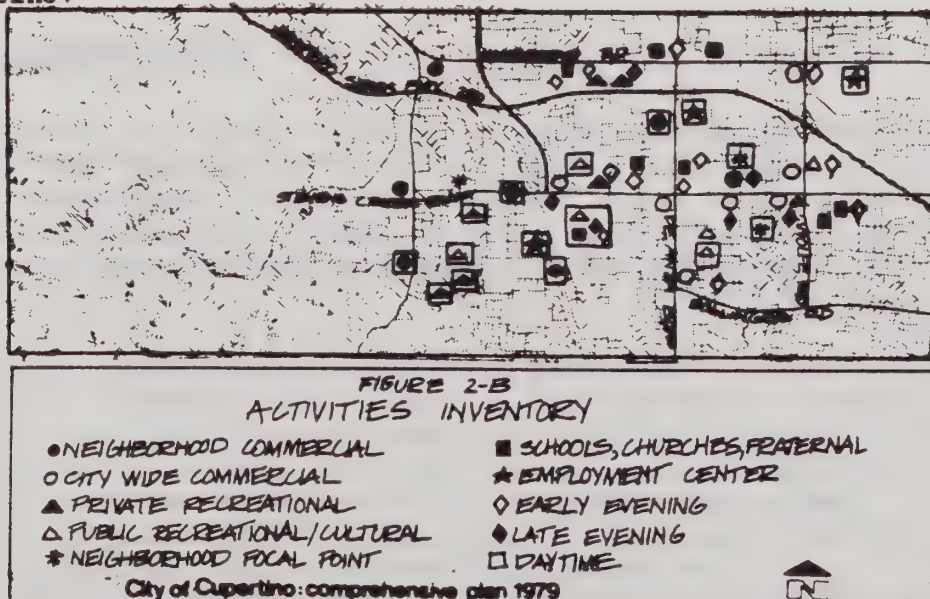
Planning Area Policies
page 2-40

Circulation
page 4-18

Construction Phasing
Memo for Vallco Park
July 15, 1974

Trails & Pathways
page 4-14

As Figure 2-B illustrates, the City seems to lack an evening hour focal point, especially for convenience of residents west of De Anza Boulevard. The "Town Center" area at the southeast quadrant of De Anza and Stevens Creek Boulevards has been planned from its earliest conception as the urban focus of Cupertino.



2-1. Vallco Construction Phasing Memo, January 14, 1974.

The need for such a focus, "Town Center", remains valid in the context of enhancing community character. Cupertino is somewhat unique in that it has no identifiable "downtown", and has most of its available commercial property in the central part of town. Accordingly, the City has a significant opportunity to create a large-scale focal point which reflects a microcosm of the Cupertino lifestyle by providing a diverse commercial, residential and public facility usage mixture in a uniformly-planned approach.

Policy 2-3: The City shall attempt to coordinate the efforts of private property holders within the Town Center area to plan and create a community focal point which expresses the character of Cupertino through a diversity of uses, serving the City at large and scaled to the enjoyment of pedestrians.

Planning Area Policy
Town Center
page 2-39

Strategy

1. Withhold incremental development of the Town Center planning area until the City has adopted a comprehensive conceptual plan for the district in cooperation with all affected property owners.
2. Ensure that planning for the Town Center provides public open spaces linking the Town Center development to both sides of the Torre Avenue extension.
3. Approach the architectural design of the Town Center commercial/entertainment segment from a standpoint of unique building forms and subterranean parking, if possible, to enhance pedestrian scale.

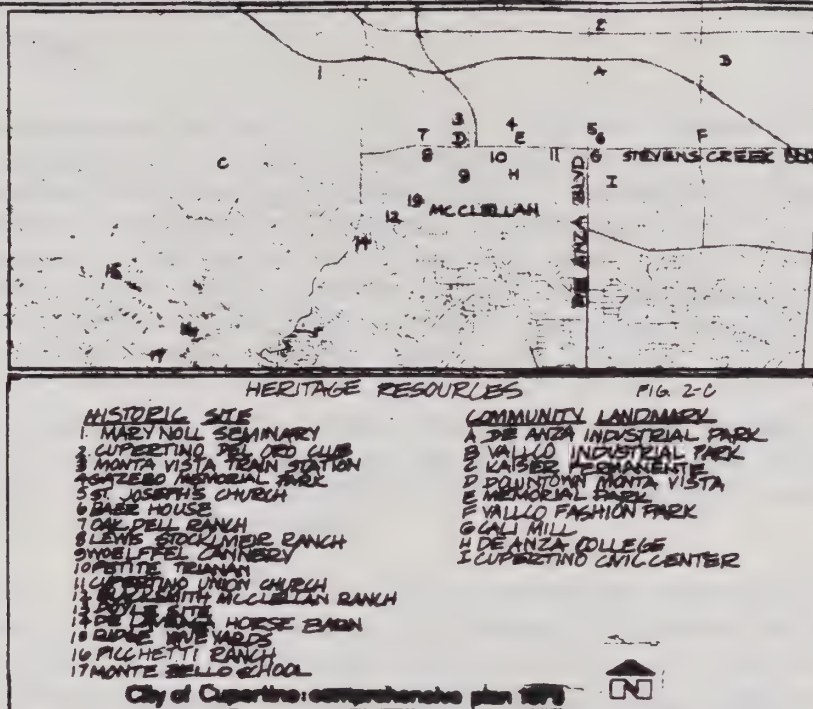
More specific policies for Town Center are described in the Planning Area Policy Section of this section of the Plan.

HERITAGE RESOURCES

Heritage properties are a unique category of urban landmarks in that they identify distinctive aspects of the community's former lifestyle and activities. Often, these sites remind us of the colorful personalities which built or occupied them, creating an even stronger tie between today's residents and those past.

Most of the historically significant properties in Cupertino are in private ownership today. As such, the pressure to remove historic buildings or reconfigure individual sites in a manner which obscures historic character remains largely unchecked by public policy. Where feasible, the public and private sectors can cooperate to devise creative alternatives to the irretrievable destruction of heritage properties.

1. Cupertino Chronicle, California History Center, De Anza College, Local History Studies, Vol. 19, 1975.
2. Santa Clara County Heritage Resource Inventory, San Jose, Calif., October, 1975.



A successful example of joint public/private effort in rehabilitation of a historic structure is the DeLaveaga "Tack House" (stable) within the Rancho Deep Cliff residential subdivision. The building was refurbished extensively inside but still retains much of its original exterior appearance. It is now the focal point of that 61-home community, serving as the recreation center/meeting hall.

Policy 2-4: The City shall undertake an active partnership with private owners of existing landmark structures to rehabilitate them for public or semi-private occupancy and to retain their historic architectural character.

Strategy

1. Encourage and assist private efforts to restore historic properties by allowing flexible interpretation of zoning ordinance and code standards not essential to public health and safety, such as reduced on-site parking provisions or lesser setback distances, when such action will facilitate the economics of private restoration effort.
2. Create a historic property zoning category to regulate the unique aspects of historic preservation and to facilitate private owner tax advantages offered for preserved properties in such zones.

Goal B: Encourage a development pattern for the community which will promote a variety of scale and formality in building form and which will facilitate access to all parts of the community by all segments of the population.

URBAN FORM

An aforementioned objective of this land use element is to enhance community character by encouraging a variety of developed forms and intensities within the City. Intensified nodes of urbanization are already committed at the Lands of Vallco Park, and the industrial complex on North De Anza Boulevard. The Town Center has potential for a new activity. Each of these activity nodes offers the potential for highly sophisticated building forms to enhance and complement the City's natural skyline.

The enhancement of Vallco Park, Town Center, and North De Anza Boulevard will advance the long sought-after community objective of breaking the strip commercial development pattern exhibited on the City's major boulevards.

Residential uses sited in strategic locations adjacent to major boulevards provide opportunity to intensify streetside landscaping and experiment with interesting juxtapositions of architectural form. Reserving spaces adjacent to Cupertino's principal commercial boulevards for less intense uses, such as housing or open space, offers a strong statement to the observer that this community wishes to deprioritize the automobile's claim upon diminishing supplies of urban land, and that community identity depends upon the visible evidence of an around-the-clock population to add vitality to the urban core.

Policy 2-5: The Land Use Plan shall continue to provide for and encourage an intensified focus of urban development within the Vallco Park, North De Anza Boulevard, and Town Center planning areas, subject to appropriate design and transportation network controls.

Planning Area Policies
page 2-36

Strategy:

1. Multi-story structures within the Planned Development communities of Vallco Park, Town Center, and North De Anza Boulevard may be constructed upon a finding that nearby residential neighborhoods will not suffer from privacy intrusion or be overwhelmed by the scale of a particular structure or group of structures.
2. Encourage non-City governmental agencies to locate new and re-locate existing administrative office within the Town Center.

Building Form & Scale
page 2-15
Policy 2-15
Strategy 1

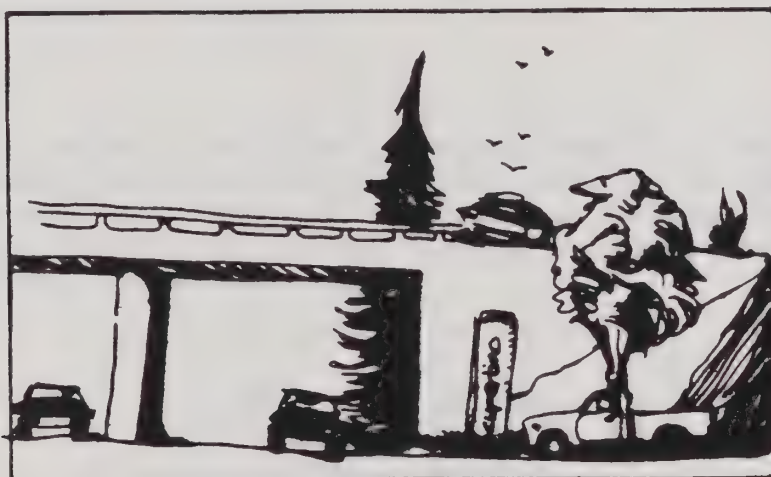
Policy 2-6 The City shall encourage development of residential and public open-space facilities on lands adjacent to the City's major commercial thoroughfares to provide a balanced variety of land use intensities, to augment the City's housing supply, and to break existing or potential strip commercial development patterns.

The strategy to create a more pleasing development form for the City must also include a strong emphasis for community entry points.

Gateways

Community character was defined earlier in this text as a visual impression distinct from that of adjoining cities. Gateways into the City are an important device for organizing the development pattern and creating a memorable impression of the City for the observer.

Residential Gateways
page 2-18



Many different forms of visual phenomena can define a community "gateway". Sometimes, formal elements such as arches, fountains, banners or landscaping are used to identify an entry point. In other instances, a gateway may be dramatic without man-made devices. Community gateways are not always found at the political boundaries of neighboring cities, but may occur at places well within the City limits. For example, the system of overcrossing at Lawrence Expressway and Stevens Creek Boulevard are a definite gateway to the east edge of Cupertino, even though that structure is technically out of the City.

Policy 2-7: Properties adjacent to community entry points should be reviewed at the time of development or redevelopment to reflect the "gateway" concept.

Non-Residential Development Standards

The primary objective of a land use plan is to guide the development form and land use intensity of the built environment. In order to plan the successful integration of mixed land uses in the

urban core and ensure that the community's character is enhanced at a micro-scale, the Cupertino Land Use/Community Character Element contains site and architectural design guidelines.

Policy 2-8: Driveway openings (curb cuts) per site should be minimal in number.

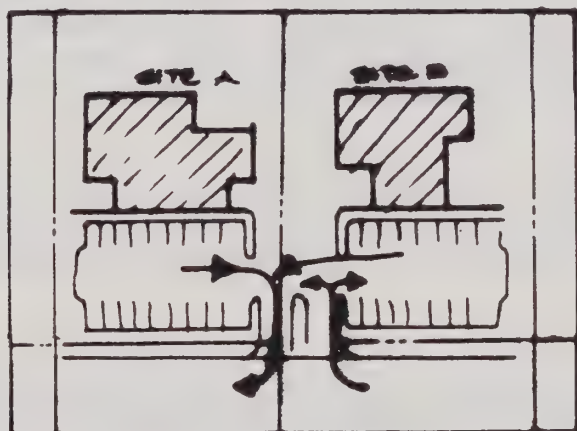
Limitation on Access
page 4-19
Policy 4-5

Numerous driveway approaches can impede efficient traffic flow on "busy" streets as drivers merge into travel lanes in indiscriminate patterns.

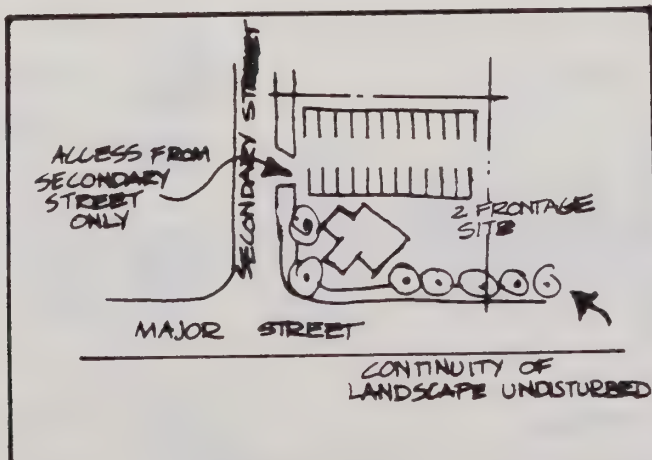
Also, by limiting frequency of driveways, frontage landscape themes can maintain a stronger visual sense of continuity than would be possible otherwise.

Strategy

1. Where feasible, adjacent properties should implement shared driveway access and interconnected internal circulation systems. In instances of remodeling on existing non-residential sites, the City may require closures and/or consolidation of existing driveway openings.



2. Properties with frontages on major and secondary streets should direct access to on-site driveways from the secondary street.



3. Temporary driveway openings may be permitted on a non-residential site subject to findings by the City that such a facility is necessary to public safety. Temporary driveway openings may be removed and access incorporated with other driveways when surrounding properties develop or redevelop.

Policy 2-9: Street improvements such as driveway openings, sidewalks, bus turnouts and shelters and street furniture such as lighting standards, benches, trash containers and so forth should be planned as an integral part of any project site to ensure safe, efficient movement of people and vehicles into and away from the site with minimum disruption to the appearance of the streetscape.

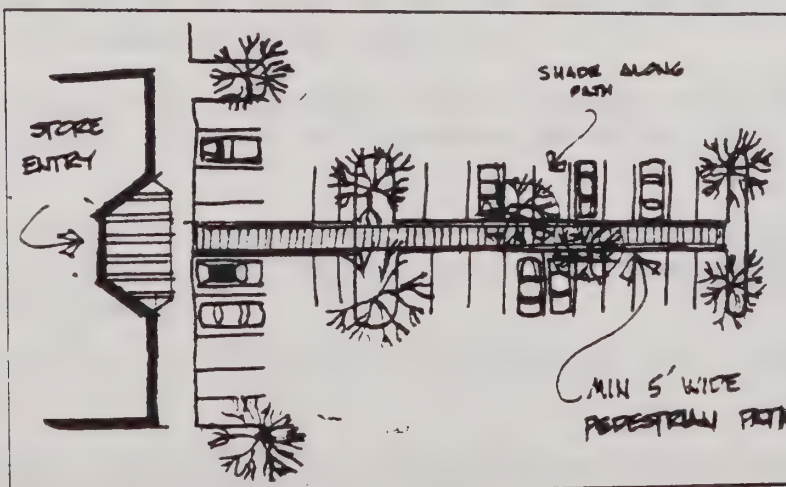
Strategy

1. Sidewalk width should generally not exceed five (5) feet. Access from sidewalk to parking areas or building frontage will be examined at the time individual sites develop, to regulate entry to the site at a central point.
2. Bus stop turnouts (in whole or in part) may be required within the street frontage of a new or redeveloping site, and may include necessary street furniture for the comfort of those waiting for a bus. Santa Clara County Transit District specifications for improving such facilities shall be followed.

Policy 2-10: The City shall assess the proposed layout of a parking area to ensure that the space accommodates safe movements of persons and vehicles.

Strategy

1. Parking areas should include clearly defined spaces for pedestrians to separate foot traffic from the hazards of vehicle travel and to direct persons from their cars to building entries.



Alternatives to the
Automobile
page 4-22
Policy 4-8
Strategy 2

2. Adjacent properties of similar use should attempt to link parking areas together through a coordinated circulation network. Appropriate legal documents to formalize implementation of shared parking and circulation easements, should be required as conditions of development.
3. Locking bicycle parking facilities should be provided for commercial and industrial developments and should be situated in high surveillance areas to minimize risk of theft.

Alternatives to the
Automobile
page 4-22
Policy 4-8
Strategy 3

Landscaping/Parking Area Improvements

Attractive plant materials, carefully arranged and dutifully maintained, are one of the most refreshing and visual elements to be found on the urban streetscape. High quality landscaping along street frontages and on-site perimeters promote surface drainage, provide color and seasonal variation, complement building form and soften the appearance of hard surface pavements.

Parking areas should provide for efficient storage and movement of customer and employee vehicles. More than serving this basic function, however, parking areas should enhance the business sites which they serve, and should provide for safe and comfortable pedestrian activity within their bounds.

Policy 2-11: The City shall continue to regard on-site landscaping as a high priority item of review in development proposals, and shall require creative compliance with minimal landscape design standards.

Strategy

1. Trees planted adjacent to major streets shall be a minimum 15-gallon container initial size; shrubs will be a minimum 5-gallon container initial size.
2. Plant materials shall be selected to provide a variety of seasonal color, leaf texture and growth habit.
3. At least 50% of all plant materials installed per site shall be of a drought-resistant character.
4. Live ground cover varieties shall be used in place of manufactured materials or processed matter such as "tan bark".
5. Plant material should be arranged in informal "clusters", rather than spaced at regular intervals, to simulate natural growth patterns.
6. Automatic irrigation should be provided to all planting areas.
7. Competent maintenance of landscaped areas should continue

LAND USE / COMMUNITY CHARACTER

after project completion; the City will monitor maintenance quality from time-to-time and require correction of deficiencies.

Policy 2-12: The City shall continue to require land developers to retain native and exotic specimen trees on the development sites. Specimen trees can be removed when irreversibly diseased or when tree is located in a manner which severely limits the use of property in a manner not typically experienced by owner of similarly zoned property.

Tree Ord. (#778)

Policy 2-13: In instances of redevelopment, the City may require addition of landscaped areas to sites deficient in street front or perimeter plantings or augmentation of existing planter areas, as a condition of obtaining a building permit.

Policy 2-14: Parking areas should be screened from public streets and adjoining private and public properties by utilizing grading and landscaping techniques. The screening technique should not preclude police surveillance from adjoining streets.

Strategy

1. Earth berms, in combination with dense landscape materials, should be used on parking lot perimeters adjacent to street frontages.
2. Parking lot grade elevations should be kept at or below the level of adjacent top of curb to minimize automobile parking visibility.
3. Perimeter landscaping areas for all non-residential sites should not be less than 5 ft. wide where they adjoin the perimeter of an adjacent non-residential property, nor less than 15 ft. wide where they adjoin a residential property.
4. Parking stall bays should include planter areas at each end and in the center, except when providing pedestrian path including shade trees, and should provide "kick-outs", tree pockets or other devices for shading the parking area.

Building Form and Scale

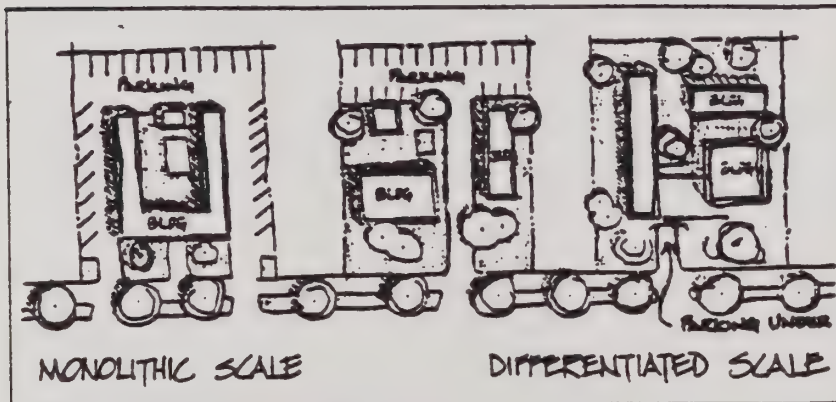
Previous discussion of the City's future development pattern has suggested the appropriateness of encouraging variation in form, scale and intensity of building activity throughout the City. High intensity nodes offer the greatest opportunity for innovative construction planning, and the City should actively encourage creative approaches to large scale site planning.

Policy 2-15: Development review shall emphasize visually attractive on-site environments through careful attention to building scale, landscaping, placement and screening of equipment/loading areas and related design considerations.

Strategy

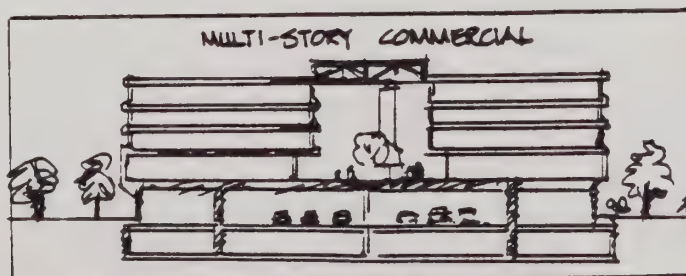
1. Building height should reflect the prevailing low-profile design of existing community form. In certain locations, heights in excess of two stories may be considered where an existing urban character is established, or where a tall building might accentuate a community gateway.
2. Building placement on a site should avoid monotony and a monolithic appearance within the surroundings. Where the project involves a large number of buildings, they should be grouped to create a feeling of spatial units.

Urban Form
page 2-9
Policy 2-5
Strategy 1



3. Developers of commercial, office or industrial sites are encouraged to investigate the concept of underground parking or construction of building mass above the ground level parking. The design of below-level parking facilities shall be reviewed by the City's police agency, with the objective of minimizing the potential for crime.

Crime
page 6-54
Policy 6-29



Policy 2-16: The City should encourage the use of design techniques and development controls which will offset the divisive barrier effects of major roadways.

Park Access
page 5-30
Policy 5-27

Strategy

1. Designate less intense building scales on properties adjoining streets which lead to residential neighborhoods.
2. Delineate pedestrian crossings with pavement treatments scaled to the speed of the street, and use "chokers" to decrease the distance of street crossing.

Mitigate Impacts of
Circulation System
page 4-23
Policy 4-11

AUTOMOBILE ORIENTED BUSINESSES

Council policy suggests that take-out restaurant uses should be placed in established shopping centers and discouraged as freestanding uses to provide more effective control of traffic congestion, litter and loitering which often follow such operations. Both of these policies remain in effect at the present time and will probably continue into the foreseeable future.

A new and corollary phenomenon of intensified site usage is the multi-service market/gasoline sales activity currently promoted by some members of the convenience grocery business and some of the Nation's major oil retailers. There are certain advantages to these facilities. These centers would perhaps encourage some energy savings by allowing one-stop shopping for household goods, garden supplies and gasoline, thus eliminating unnecessary travel. However, these advantages must be weighed against the high standards of visual community character already established by the development pattern, and should be integrated on site with sufficient space to adequately minimize more intensive attraction of vehicle traffic.

Policy 2-17: The City of Cupertino will actively discourage further expansion of the take-out restaurant business within its jurisdiction, when proposed as a freestanding use, and not part of an overall planned center.

Policy 2-18: The City of Cupertino will not permit new drive-up service facilities for any commercial, institutional or industrial use.

Goal C: Enhance and protect the integrity of residential neighborhoods of the community.

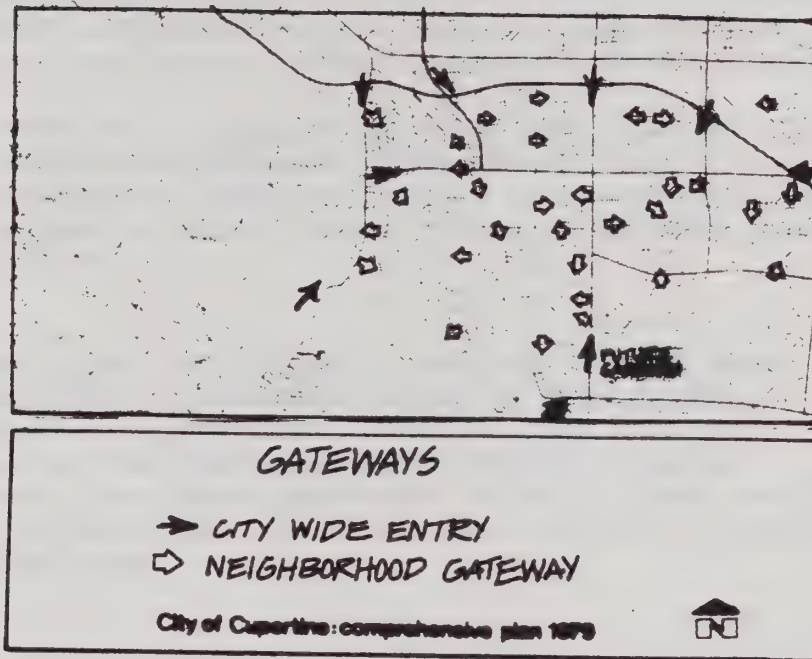
Drive-up Windows
pages 5-9, 5-10
Policy 5-5

RESIDENTIAL NEIGHBORHOODS

The City's basic organizational component is the neighborhood. Neighborhoods may incorporate a large variety of activities or be oriented largely to a single-purpose usage. Any neighborhood, however, must be planned carefully to ensure that its residents enjoy a safe and comfortable living environment, and a reasonable protection of their property investment.

The choice of an individual's home and location is as much an emotional as a financial investment. Cooperative inter-relationships can flourish within a neighborhood, or within subsections of a neighborhood when residents feel identified with, and responsible to those who also live close by. Households can assist one another in supervising children at play and protecting property against burglary or other crime. Individual property owners also experience greater incentive to continue property maintenance at high standards.

Traffic in
Neighborhoods
page 4-23
Policy 4-12



Neighborhood Entries

Well-defined entry points are a key aspect of neighborhood organization. By accentuating the gateway, motorists are alerted to the presence of human activity and are likely to reduce speed and increase vigilance. Also, an appropriately styled and scaled visual "gateway" device can be an aid to the individual resident's feeling of identity with a specific area of the wider community.

Policy 2-19: Neighborhood entry points should be defined through architectural, landscape, or topographic techniques appropriate to the formal or rural character of that neighborhood. The City's design review boards should discourage the use of neighborhood entry concepts which create isolated individual developments, such as the use of electronic security gates and walls or fences.

Strategy

Existing housing groups should be identified as area redevelopment occurs and should be enhanced through modification of street pattern, street landscaping or other techniques.

Community Gateways
page 2-10

Noise Control
Policy 6-27
page 6-50

Housing Variety

Goal B of the Housing Element commits the City to encourage a variety of available housing types within the City. Persons with low or moderate income such as the elderly, the handicapped, newly-formed households or students can be excluded from locating in Cupertino when housing suitable to their needs is unavailable.

Current zoning regulations in Cupertino tend to perpetuate "single purpose" neighborhoods of homogenous built-forms. Often, however, skilled designers are able to integrate more intense residential uses on infill sites without visual harm to existing neighborhood character.

Policy 2-20: The City shall encourage variation in housing type and intensification of density for properties in the urban core area from that permitted by the underlying zoning district, subject to design considerations which ensure that the development is consistent with the visual character of surrounding uses.

Privacy

A successful residential environment should provide opportunity for social contact, as a matter of choice, and space for solitude both inside and outside of the structure. Public agency attention to privacy intrusion control solutions in the initial stages of development approval can go far toward achieving the objective of social separation among individual homesites. One-hundred percent effective performance standards in privacy intrusion control are not realistic in an intensely settled geographic region, and some degree of trade-off must be made between the need for isolation versus the choice to live in the urbanized Cupertino community.

Policy 2-21: The site design for a residential project should provide private indoor and outdoor spaces for each dwelling unit and common outdoor recreation space.

Policy 2-22: Design of residential development shall include techniques to minimize visual and auditory intrusion impacts upon individual occupants from activities originating on adjoining sites.

Strategy

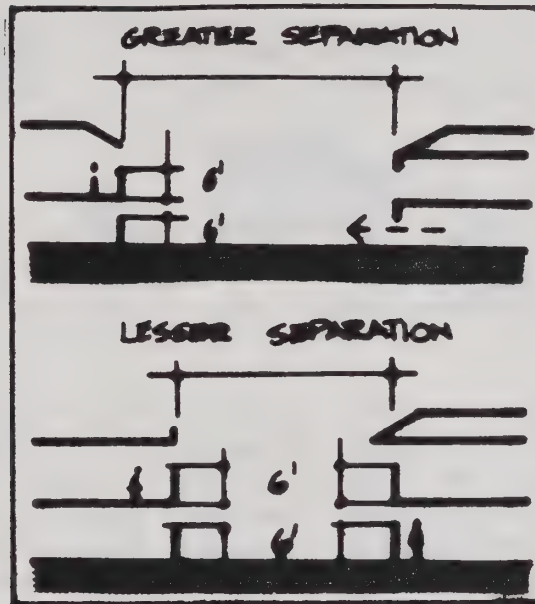
1. Building separation, as a privacy intrusion control technique, should be analyzed as a relationship between adjoining

Goal B, Housing Element
page 3-22

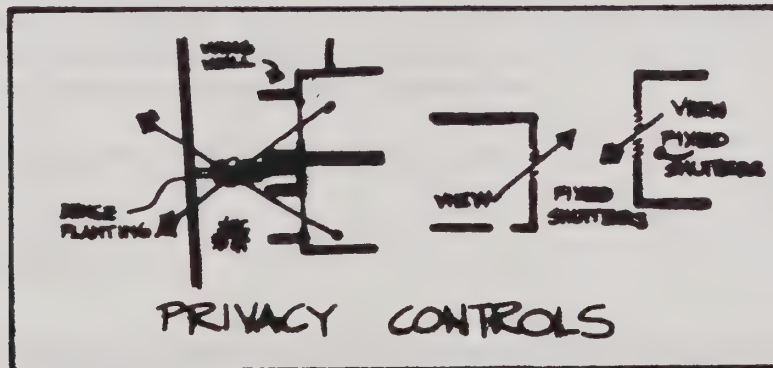
Integrate Uses
page 3-21
Policy 3-4 & 3-5

Privacy Provisions
R3 Ord. (#779)
R1C Ord. (#664)

interior living areas, and the size and frequency of wall openings.



2. Privacy intrusion control devices should be made to function and appear as an integral part of the architectural concept of the building to which they are attached. Fixed shutters, obscure glazing or "wing walls" adjacent to window openings are possible techniques for considerations.



3. Landscaping as a privacy protection control method should usually be supplemented with architectural design and site layout techniques to provide immediate privacy intrusion protection without waiting for plant material to mature.

Interface between Uses

Housing environments adjoining commercial and industrial land uses are a common occurrence in Cupertino. Commercial structures fronting on major streets with residential uses to the side or rear can

co-exist peacefully; provided that adequate design controls are considered at project inception.



Policy 2-23: The City shall help protect residential uses, which adjoin commercial or industrial sites, from potential noise, traffic, litter, and public safety hazards through adequate separation of structures and careful siting of loading areas or other noise generating sources.

Strategy

1. Separate non-residential and residential structures as may be required by the Planning Commission at the time of individual site review. Separations may be required according to building height, size of intervening fences and barriers, and intensity of commercial or industrial activity anticipated.
2. Loading areas, service doors, mechanical equipment compounds and trash enclosures should be located as far as possible away from adjoining residential properties.
3. Hours of operation should be controlled.

High Quality Design

The City of Cupertino traditionally attracts high-quality development design proposals in part due to the premium value of land, and to the community's reputation for demands of excellence in built-form. Certain principles of residential building design have evolved as standards of exterior visual quality which reinforce community character in the housing stock.

Policy 2-24: Proposed or remodeled residential structures, other than single-family detached units, shall be thoroughly studied in development review to ensure that they reflect a pleasing sense of scale and exterior visual interest.

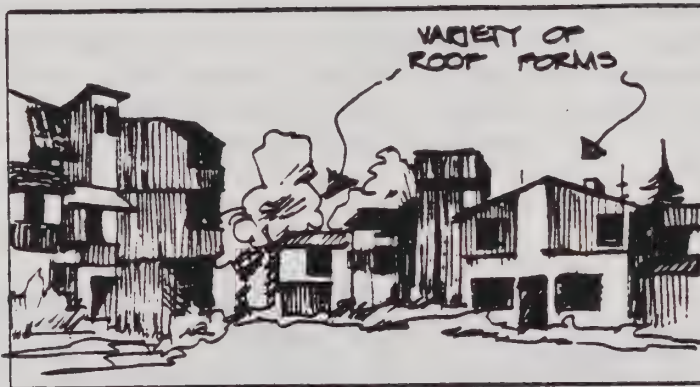
Strategy

1. Create a pleasing and distinctive building form through vari-

ation in colors, textures and materials which carry through on all four sides of the structure.



2. Strive to utilize an interesting variety of roof shapes and styles.



3. Natural land features should be incorporated into the overall layout of a residential site. Out-croppings, stream courses, specimen trees should be used as focal points in the project when feasible, and should not be overwhelmed by built-forms.
4. Residential building height should be controlled as provided for in existing zoning regulations. In zoning districts where no definite height limit standard is specified, three story forms may be considered subject to adequate design consideration of the surrounding neighborhoods.

Traffic Intrusion

As mentioned previously, Cupertino's urban form emphasizes major boulevards and traffic-ways. Unfortunately, as peak traffic volumes begin to fill those major streets, a certain portion of that traffic may divert through local neighborhood streets. Traffic Management Science has evolved several approaches to solving the problem of minimizing "through" traffic

in local residential districts. Techniques used successfully in other communities include creating circuitous rather than direct connection of collector streets between arterials, "diverters" to direct or eliminate turning movements, and variations in pavement width to discourage speeding and accentuate pedestrian crossings.

Policy 2-25: The City shall undertake a comprehensive investigation of neighborhood traffic patterns and devise solutions which protect neighborhood streets from the spill-over effects of arterial through traffic.

Neighborhood Park

The current network of public open space offers most residents and visitors the opportunity for active play or quiet relaxation. In some cases, however, park sites are inadequately sized or under facilitated to accommodate the population which they serve. In some instances, access to public open spaces is hampered by the existing traffic or development pattern. The neighborhood park site is an important aspect of strengthening the integrity of the residential living environment, as it offers an unrestricted meeting place for socialization and a visual respite from the continuity of the neighborhood's built-form.



The Open Space Element details the park space needs of the City's various neighborhoods and offers strategic recommendations for expansion of undersized facilities, along with policies to clarify linkage of the park to its service area.

Special Neighborhood Planning

Traditional land use planning techniques are intended to be applied uniformly to any property in a particular planning district. While this approach attempts to ensure that the regulatory process treats all owners of similarly situated properties equally, generalized devices do not always leave sufficient flexibility to deal

Circulation
page 4-23

Policy 4-10
4-11
4-12

Noise
page 6-43
Policy 6-18
6-19

Parks
page 5-30

adequately with unique subtleties of form and function which may be encountered in different geographic locations of the City. For this reason, the City should recognize the particular qualities of certain design areas and tailor a specific land use program to that district's special requirements.



Policy 2-26: The Planning Commission should undertake the task of preparing conceptual area land use plans for certain neighborhoods which are subject to unusual environmental or geographic sensitivities.

A Joint City/County Specific Plan was adopted for the Old Monta Vista area and is incorporated into this document by reference. A Conceptual Zoning Plan was adopted for the North De Anza Boulevard area. These plans are adopted as part of the existing land use criteria for Cupertino and are reaffirmed by reference in this revised Element. Neighborhoods for future study might include Town Center and Vallico Park in cooperation with the private design teams planning these areas and Stevens Creek Boulevard.

Stevens Creek Blvd.
Plan Line Study
Action Plan

North De Anza Blvd.
Conceptual Plan

Goal D: Provisions for the protection of the environment and the personal safety of the City's residents shall be of primary concern in all elements of the General Plan.

ENVIRONMENTAL PLANNING

Maintenance of community character requires respect for irreplaceable assets of nature in the process of growth and development. In some cases, careful design controls can actually cause man-made form to complement and enhance the natural terrain. For example, the highly symbolic Mary Knoll Seminary is situated on a prominent ridgeline and accents the wooded setting of this hillside landmark. In other instances, the land's indigenous vegetative covering should be left undisturbed as a break in the continuity of the urban pattern, as in the case of the Stevens Creek Flood Plain.



Preserving the Hillsides

The Cupertino hillsides are an invaluable resource shared by residents of the entire Santa Clara Valley. The introduction of low-intensity residential development into the foothills will create a proprietary interest among owners to preserve the natural environment. In that sense, owners function as custodians. While a low-density designation for hillside limits housing opportunities to high-income purchasers, the position is in compliance with the broad objective of providing housing opportunities for all economic segments of the community. In the case of the foothills, the community is trading off low and moderate-income housing opportunity for the preservation of a natural resource which benefits a regional population.

Policy 2-27: The foothills may be developed with low-intensity residential use with the dwelling unit intensity to be based upon the application of a slope-density formula. Limited commercial/professional office uses may be permitted within a Hillside Planned Development if said uses directly serve the residents located within a Planned Community. Appendix A provides detailed information regarding the application of slope density formulas.

Hillside development will result in some scarring as a result of grading for roads, housing sites, and public and private subdivision improvements. The City's improvement standards must, therefore, be designed to balance the need to provide adequate utility and public emergency services against the need to protect the land form, vegetation, and animal life of the hillsides. Roads should be narrowed to avoid trees and streambeds. Grading should be minimized by prohibiting mass grading for building sites and by allowing narrow driveways to serve more than one lot in lieu of public streets.

Policy 2-28: In order to preserve the rural character of the hillsides, the residential hillside zoning ordinance and hillside subdivision regulations shall provide for urban improvement standards.

Strategy

1. New construction, especially in flood hazard or hillside areas, should follow existing land contour and utilize

RHS Zoning District
Ord. (#881)

Hillside Subdivision
Ord. (#882)

Appendix A
Hillside Slope Density
Formula

Public Safety
Policy 6-12
page 6-34

alternative methods to "mass grading".

2. Significant specimen trees, especially where such occur in groves or clusters should be retained and integrated into the developed site.

Tree Ord. (#778)

The Montebello foothills system at the south and west boundaries of the valley floor provide a scenic backdrop to the City, adding to its sense of scale and variety of color. While an uninhibited view of the hills from any vantage point cannot be guaranteed, public enjoyment of this unique visual resource should be accessible from public gathering places.

Policy 2-29: Layout and design of public facilities, particularly public open spaces, should be oriented to incorporate views toward the foothills or toward other nearby natural features.

Strategy

1. In the case of properties located adjacent to public open space preserves and parks, public rights of way, private driveways and building sites shall be removed as far as possible from said open space and park land so as to enhance their natural open space character and protect vegetation and animal resources.
2. Homes and other structures in the hillsides shall be located so as not to substantially disrupt the natural silhouette of prominent ridges as viewed from the valley floor.

Proper regard for natural phenomenon in the urban context must also include responsible management of certain environmental risks and hazards. Land use within highly-sensitive areas must reflect a degree of caution in order to protect human life and property from the dangers of flood waters, brush fires, earthquakes, and landslides.

Policy 2-30: Proposals for hillside development shall be subject to prior investigation by competent professional consultants to ascertain the presence of, and solutions to mitigate environmental dangers.

Geologic Hazards
pages 6-1 through
6-17

Policy 2-31: Natural conditions of land form and significant vegetation should be subject to the least degree of disturbance possible during development.

Stevens Creek and its streamside environment are among the most

pervasive natural influences on the character of Cupertino. The Creek forms a strong demarcation of the urban and rural portions of the City, extends a note of unspoiled beauty into the heart of the developed valley floor, and provides many residents and visitors with a pleasant space for play, relaxation or study of its plant and animal life. At times, however, flood waters from the Creek can pose a risk to the community.

Permitted uses in the flood plain should allow for public accessibility, but should prohibit materials which restrict free-flow of creek waters or which significantly disturb the riparian environment.

Policy 2-32: Existing commercial/recreation uses that are exclusively within the natural flood plain shall remain as a commercial/recreation and/or agricultural use.

Policy 2-33: Non-recreation properties shall be designated residential 0-5 dwelling units per acre with the following stipulations.

- a. In no case shall structures designed for forced human habitation (such as dwelling units) be allowed in the natural flood plain as defined by the General Plan based upon data submitted by the Santa Clara Valley Water District. Unfenced volleyball courts, picnic tables and similar recreation uses common to a commercial/recreation use and residential development may be constructed within the natural flood plain.
- b. The maximum number of dwelling units allowed on each property or group of properties consolidated into one development plan will be based upon the numerical designation range described on the General Plan Map. The land area within the natural flood plain can be credited in an amount not to exceed one dwelling unit per gross acre to determine the total number of dwelling units permitted on each property or group of properties consolidated into one development plan. If a parcel is divided, with a portion located outside of the natural flood plain, the maximum dwelling unit density for said property(ies) shall be six (6) dwelling units per gross acre. This policy will preclude a situation whereby a relatively small property will obtain a high density status as a result of one (1) dwelling unit per acre density credit from a relatively large area within the flood plain.

The total number of units allowed on the property or group of properties consolidated into a single development plan will be based upon the ability of the applicant and his professional design team to integrate the development into natural environment of Stevens Creek and adjacent residential neighborhoods. The environmental

Private Open Space
page 5-28
Policy 5-25

Figure 5-6
page 5-29

Flood Ord. #1002
Chapter 16.48
Municipal Code

assessment procedure and the criteria contained within the single-family cluster ordinance will help to define the appropriate density range for each individual development.

- c. Residential development plans shall incorporate the Stevens Creek trail concept described in the public parks section of the General Plan.

Policy 2-34: Public and Quasi-Public land uses and agricultural land uses shall be allowed within the natural flood plain after review in conjunction with a specific zoning or use permit application.

Open Space Map
page 5-24

Figure 5-F

Public Safety
Policy 6-11
page 6-34

Neighborhood Awareness

Criminal activities such as burglary and vandalism occur even in the finest neighborhoods. While investigating and solving crimes is the principal function of the public police agencies, prevention of crime is a joint responsibility of the individual resident or merchant. Security considerations must enter into the design of new buildings and site layout of new projects, both for the peace of mind of inhabitants, and for control of service burdens on the local police. Additionally, building design and orientation should enable neighbors to assist each other in monitoring their respective properties and children's play areas.

Public Health & Safety
page 6-53
6-54

Policy 2-35: Employ design techniques in new development or rehabilitation which will help to increase security and personal safety and which enables cooperative neighborhood awareness.

Public Safety
Policy 6-28
page 6-54

Energy Awareness

Public attention has focused more clearly in recent years on the need to develop long-term alternatives to present levels of dependence on fossil-fuel energy sources. One energy efficient alternative is the application of site and building design principles which utilize the benefits and control the disadvantages of the prevailing seasonal climate.

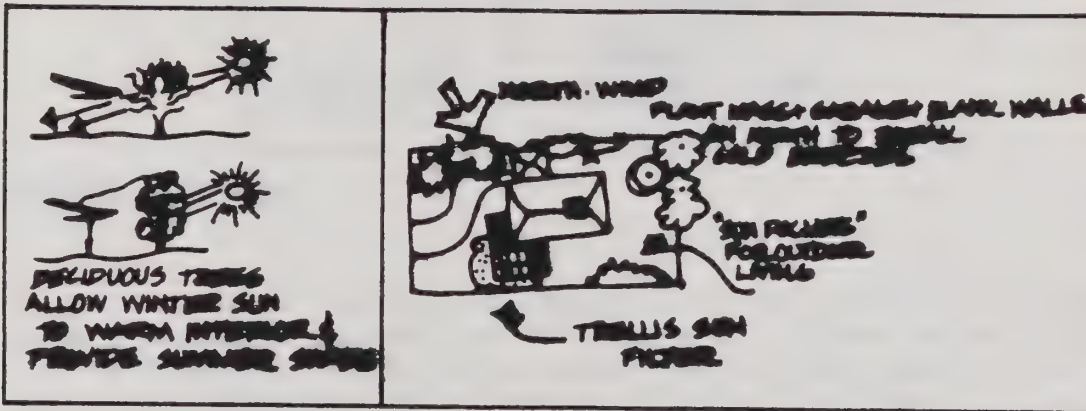
This section discusses a few of the many different approaches for enhancing the comfort of the home environment and reducing energy consumed to heat or cool interior spaces.

Environmental
Resource
Energy Conservation
pages 5-19 through
5-23

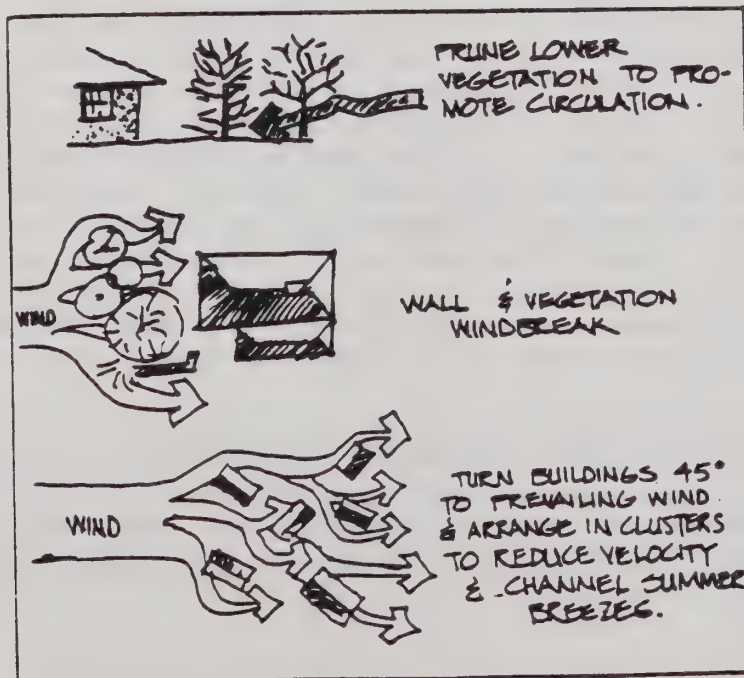
Policy 2-36: Special precaution should be taken to

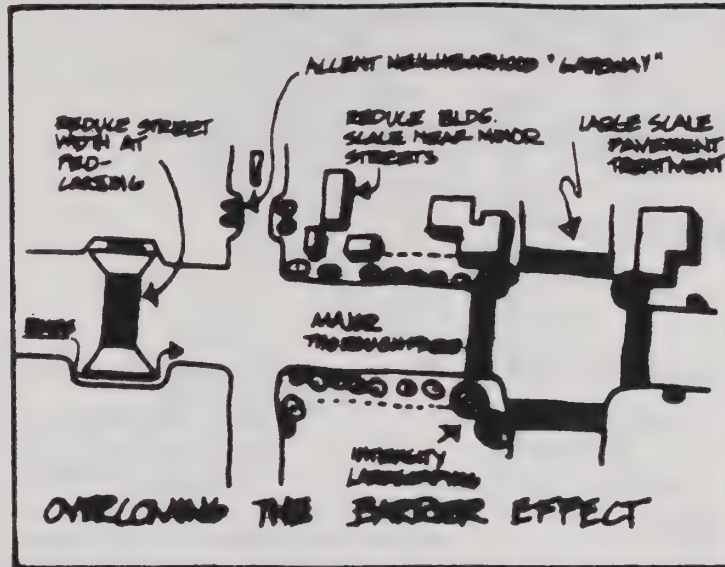
ensure that all residents have an acceptable balance of access to and protection from the sun, and effective control of prevailing winds at their homes.

Sun Control: The State Subdivision Act requires the City to consider solar access when reviewing subdivision design. In addition to subdivision design builders will be encouraged to orientate private outdoor spaces to the south, east or west sides of a site, preferably with two unobstructed orientations to increase the number of hours of sunlight available each day. Private open spaces should be sheltered from the sun. A portion of the use of trellis work, awnings or landscaping, height and position of adjacent structures should be studied to protect against excessive shadow patterns on related yard spaces, assuring equitable access to the benefits of solar radiation.



Wind Control: Prevailing winds in the City originate from the northwest across San Francisco Bay. The relatively low built-forms and gentle topography between the Bay and Cupertino have little effect on general reduction of wind velocities which reach a peak during afternoon hours. The prevailing winds are an important component of the climatic comfort of a living environment, since the breezes can provide relief from warm temperatures. High winds can tend to discourage use of outdoor areas; accordingly, careful site design can break up wind patterns and reduce their speed to produce gentler, more refreshing breezes.





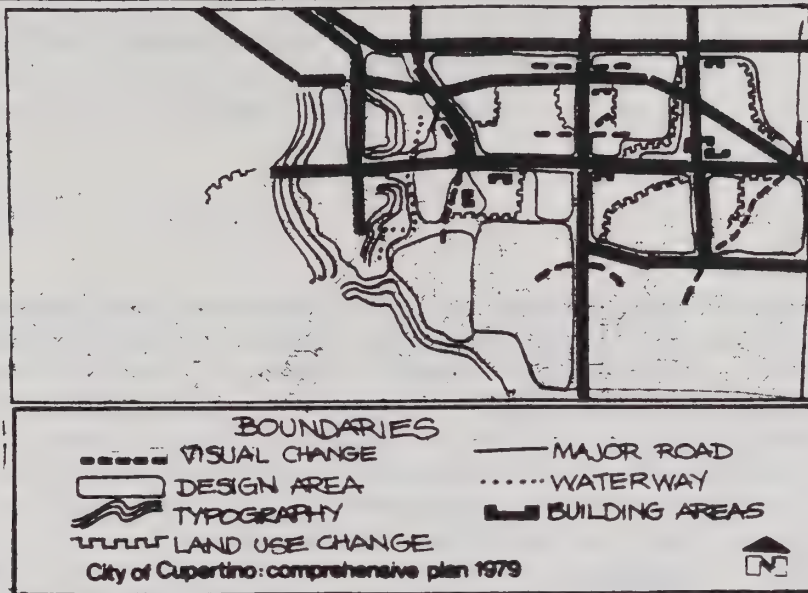
SCENIC HIGHWAYS

Cupertino's urban form and the lifestyles of its citizens are heavily influenced by the surface street network. Streets can have a positive influence by forming edges which tend to unify generalized areas into neighborhoods or conversely streets can have a negative influence by compartmentalizing areas of the community.

When edges lack penetrability and close one region off from another, they are called "barriers" and their social effects can be detrimental. Studies have shown, for example, that speed, even more than traffic volume, has a compelling influence on the activities of persons living in close proximity to major streets. Families with young children tend to shun housing in such locations when alternatives are available. Pet ownership is sometimes foregone due to traffic dangers.

As a result of past decisions and growth of surrounding communities, Cupertino is cross-divided by a grid of major streets with high volume carrying capacity to accommodate through commute traffic. Of all aspects of built-form, the roadway network represents perhaps the most serious threat to the integrity of our community character. Traffic danger, odor, noise and the "stacking" effect of vehicles at high demand volume periods are disruptive to the organization of land use activities arranged along these streets. Taken to extremes, the divisive effect of major boulevards could disrupt the composite identity of Cupertino into a random collection of individual neighborhoods.

A city which is designed around the functional needs of the automobile has an entirely different developed form from that of a city which is structured to accommodate a variety of transportation modes. The resultant system not only affects the degree of transportation opportunity for all people, but also has design implications.



Major streets are the channels along which visual elements are arranged. To distinguish Cupertino from the outlying fringe of adjoining cities such as Sunnyvale or San Jose, a key aspect of community character is to avoid copying the apparent developed form of those cities adjoining major streets; that is, an unbroken continuity of commercial or office activities emphasizing intense daytime activity and spatial priority of the automobile.

Urban Scenic Corridors

In an attempt to mitigate the visual disruption of the City's two major boulevards on the overall image of the community, the City Council has imposed a requirement for an extensive landscape setback adjacent to De Anza Boulevard from Stevens Creek Boulevard to Route 280, and on Stevens Creek Boulevard east to the City limits. The intent of the design concept is to lead the observer to or from the pedestrian scale shopping environment of Town Center through an intensively planted parkway which can be enjoyed at vehicle scale speeds.

Policy 2-37: Properties fronting on North De Anza Boulevard and Stevens Creek Boulevard located east of Town Center shall provide a landscaped front setback of 50 ft. from face of curb which shall exclude parking areas.

Strategy

1. Reductions in the 50 ft. width may be considered according to the size of project frontage, scale and type of proposed developed.
2. Plant materials should be selected and arranged for perception at vehicular speeds.

3. The parkway setback should not extend into the crossroads intersection commercial district nor into future commercial facilities at the Town Center area.

Sign Control

Modern merchandising strategy seems to demand that the message must be directed at the highly mobile consumer both with frequent visual cues and from as great a distance as possible. Decision-makers in the Cupertino community, however, have consistently rejected this strategy for the sake of retaining visual quality in the City's urban streetscape. Consistent with the intent of de-emphasizing strip commercial development, therefore, the City has defined the role of street visible graphics as that which is appropriate in message content and size to identify a business site, rather than to advertise products and services from afar. Further, effective sign control enhances linkage of the Vallco-North De Anza-Town Center nodes along the City's major streets by minimizing intervening graphic disruption.

Sign Ord. (#746)

Rural Scenic Highways

Most of the significant rural corridors in the Cupertino Sphere of Influence are actually outside the Urban Service Area and are, therefore, under County Scenic Highway Preservation Policy which has been adopted by reference by the Cupertino City Council. These routes include Montebello and Stevens Canyon Roads in the western foothills, and the upper segment of Regnart Road at the southerly edge of the City. Significant road frontage setback distances and reduced right of way and carrying capacity are strategic actions which can protect the scenic integrity of rural travelways while still permitting adequate public access to their unique beauties.

USE INTENSITY CONSTRAINTS

Another indicator of current society wide mobility and the demand for instantaneous gratification of personal desires is the carry-out (fast-food) franchise restaurant phenomenon. Cupertino has attracted at least one representative of every major or emerging chain eating establishment, and this trend has alerted the City Council to the potential negative effects on the community's character which may result from an intense concentration of these uses. In 1975, for example, the City Council went on record discouraging drive-up window service for any commercial facility in town, citing harmful effects of air pollution concentration from drive-ups on community health, and the unnecessary prioritization of space demanded by customers not otherwise willing to abandon their vehicles momentarily. The City's traffic intensity performance standard additionally controls fast food and other oriented convenience retail uses which potentially generate high traffic volumes at the peak traffic hour.

"Carbon Monoxide and Sulfur Dioxide Levels Attributable to Use of Drive-up Window Facilities", prepared by Professor Donald Myronuk, Ph.D.
- February 5, 1976

The Land Use Map and General Policies

The Land Use Map located in the back of the General Plan document illustrates the General Plan policies described within this element and other elements which play a major role in guiding urban development. Since the map functions to illustrate the General Plan text, the General Plan user must utilize the Plan map in conjunction with the written text. The Plan map is not designed for use without the accompanying text.

As implied by its name, the General Plan Map illustrates the general form of the community in terms of the spatial allocation and intensity of land use activities. The General Plan Map should not be confused with the municipal zoning map which divides the community into very precisely drawn land use districts. Zoning districts contain precisely written standards governing permitted activities and the form of development. A series of policy statements are provided within the planning text to help guide the public and public officials in the establishment of precise zoning boundaries to pin-point permitted activities.

State planning law requires that the zoning map and zoning regulations be consistent with the General Plan map and text. Therefore, zoning map and regulations must be brought into conformity with the General Plan within a reasonable period of time upon its adoption.

LAND USE CATEGORIES

A number of patterns and symbols are utilized on the General Plan map to identify land use categories, the road system, major land features and significant public and private facilities. The map legend defines the meaning of patterns and symbols. A more complete definition of each land use category follows:

Residential - A designation defining areas within the community suitable for residential dwellings. The residential category is divided into five sub-categories based upon dwelling unit density expressed as the number of dwellings permitted per gross acre. The General Plan does not define the dwelling unit tenancy type (i.e. ownership versus rental) nor the pattern of development (detached or attached dwellings).

Very Low - Dwelling unit intensity is based upon the application of one of three slope-density formulas. (Refer to Appendix A)

- a. Foothill Modified
- b. Foothill Modified 1/2 Acre
- c. Semi-Rural 5 Acre

The land use classification is intended to protect the environmentally sensitive hillsides from extensive development and protect human life and property from natural hazards related to fire, flood and unstable terrain.

Appendix A
Hillside Slope Density
Formula

LAND USE / COMMUNITY CHARACTER

2-34

Low - 1-5 dwellings per gross acre. This category is intended to promote a low intensity, suburban, single-family detached, lifestyle. Planned residential communities can be developed in this density category if the development form is compatible with adjoining residential development.

Medium Low - 5-10 dwelling units per gross acre. A category which accommodates a more intensive form of residential development but which is compatible with the predominant single-family detached residential neighborhood. Residential development built within the 5-10 dwelling unit density category can be successfully incorporated into a single-family residential environment.

Medium High - 10-20 dwelling units per gross acre. A category which provides greater opportunities for multi-family residential developments in a planned environment. Generally, the 10-20 dwelling unit per gross acre density range results in traffic volumes and development forms that are not compatible with single-family residential neighborhoods. Developments at this density should be located on the edges of said single-family residential communities where utility services and street networks are adequate to serve increased intensities.

High - 20-35 dwelling units per gross acre. A category which promotes a wide range of housing choice in the form of multi-family dwellings. The relatively high intensity of the development requires that the category be applied only in those locations that are adequately served by utility services and major arterial streets and/or transit facilities. The development form may result in 3-4 level structures with underground parking. The land use category would provide maximum opportunity for housing choice particularly for residents desiring a more urban environment.

Commercial - A designation directed to retail sales, businesses and service establishments that have direct contact with customers. This designation would apply to the full range of commercial activities from neighborhood convenience operations to regionally oriented specialty goods retailing. Certain retailing activities that may result in a nuisance factor for adjoining residential dwellings or may have a negative impact on the community identity would be regulated by the commercial zoning ordinance and use permit procedure. Professional office activities would be included within the commercial designation.

Industrial - A designation applied to manufacturing and assembly and research and development activities. Administrative office facilities which are in support of manufacturing and wholesaling activities are included within the classification.

Commercial/Residential - A designation applied to land areas located on major boulevards suitable for either residential or commercial activities or in combination.

Commercial/Industrial - A designation applied to land areas suit-

LAND USE / COMMUNITY CHARACTER

2-35

able for either commercial or industrial activities or in combination.

Quasi-Public/Institutional - A designation applied to privately owned property which involves activities such as a private utility, a profit or non-profit facility that provides continuous care for people, an educational facility, or a religious facility.

Private Recreation - A designation applied to land used for outdoor oriented, privately provided recreation activities.

Parks - Publicly-owned land utilized for active or passive recreational purposes.

Public Facilities - A designation for land which is utilized or planned to be utilized by a governmental entity for a public purpose.

GENERAL POLICIES

The loose format of the General Plan Map requires the enactment of general land use policies to guide City officials and other individuals in formulating private and public land use decisions.

Policy 2-38: In general, lines of demarcation between land use classifications should be based upon lot lines of established land use activities, public streets, and man-made or natural physical barriers or a combination thereof. The precise demarcation between land uses shall be reflected on the community's zoning map.

Policy 2-39: The residential density ranges designated on the General Plan map and accompanying legend denote the desired development intensity for a given area. The actual gross dwelling unit density may deviate slightly if the particular properties reflect the general development character of the neighboring properties.

Policy 2-40: Owners of contiguous, substandard legal lots of record which do not conform to the density provisions of the General Plan, shall have the ability to consolidate or reconfigure said lots only when it results in a more logical development pattern, and is generally consistent with the character of the surrounding neighborhood.

A consolidation or reconfiguration shall not result in more lots or potential dwelling units than the number of legal lots of record existing at the time of the request.

Policy 2-41: Quasi-Public activities and public facilities

may be located within any land use designation described on the General Plan contingent upon appropriate zoning review to ensure compatibility of the proposed activity with the surrounding neighborhood and available capacity of the local streets and the utility services. Residential land uses may be permitted in areas designated for quasi-public uses with appropriate zoning changes.

Policy 2-42: All public school sites shall be designated for public use with the underlying provision that school sites that are closed for general educational purposes may be utilized for quasi-public/institutional activities and residential activities. The dwelling unit intensity and development pattern shall reflect the residential character of the immediate surrounding residential neighborhoods. The future of unused school sites shall also reflect the park acquisition program contained with the Environmental Resources Element of the General Plan.

Policy 2-43: As a general rule, lots of record located on land designated for very low density residential which were legally created by the County or City subdivision approval process prior to June 22, 1976, may be utilized as a single-family building site, even though the application of slope-density formulas would prohibit development. The above statement does not apply to substantially vacant, non-improved, small lot subdivisions that were recorded years ago without adequate field investigations and improvements plans. With respect to such subdivisions, lots of record can be utilized as a single-family building site, even though the application of slope-density formulas would prohibit development, under any one of the following circumstances.

- a. Where the owner of a lot either owns, or thereafter acquires contiguous land which can be and is combined with such lot, by the filing of a new map, to create a new lot or lots which conforms to the slope-density formulas.
- b. Where a lot was under one ownership on June 22, 1976, (adoption of the Hillside Plan), and the owner of such lot has not owned or purchased any contiguous land since the approval of this document which would allow him to meet the requirements of sub-paragraph (a).

Refer to Figure 2-D for application of Policy 2-43 to Inspiration Heights.

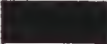




PLANNING AREA POLICIES

A number of areas within the community have special significance which requires the adoption of special policies to guide urban



FIGURE 2-D

HYPOTHETICAL DEVELOPMENT PLAN FOR INSPIRATION HEIGHTS

-  HYPOTHETICAL DWELLINGS
-  CONSTRAINED AREAS
-  PROPERTY OWNERSHIP BOUNDARY
-  PROPOSED ROADS
-  EXISTING DWELLINGS



CITY of CUPERTINO • comprehensive plan

development. The policies listed below supplement the broader land use policies contained within the Land Use/Community Character Element and other, more specific, elements of the General Plan.

Area 1 - Merriman and Santa Lucia Roads

The land area bounded by Santa Lucia Road, Alcalde Road and Foothill Boulevard was subdivided in 1917. The area is comprised of duplex and single-family dwellings that have been constructed since the recordation of the map. In order to recognize existing viable duplex development, existing legally constructed duplexes may remain within the section of the planning area master planned for a residential 0-5 density range. Said duplex parcels shall be rezoned to a duplex zoning district.

Area 2 - Monta Vista

The Monta Vista planning area is generally bordered by Route 85 Freeway on the east and by Blackberry Farm Golf Course on the west. It has been given special consideration because of the unique character of the area created by the Stevens Creek Flood Plain and the older character of the Monta Vista commercial area. The planning area is particularly sensitive to existing and future traffic demands. The land uses and policies regarding the development pattern are contained within the jointly adopted City of Cupertino and County of Santa Clara Monta Vista Specific Plan. The Plan is hereby adopted by reference.

Area 3 - North De Anza Boulevard

The North De Anza Boulevard planning area is comprised of a planned development mixed land use on both sides of De Anza Boulevard northerly of Alves Drive and southerly of 280 Freeway. The General Plan Land Use Map describes the permitted land uses within the special planning area. The permitted dwelling unit density for the residential mix areas is bracketed on specific properties or groups of properties. The commercial land use option for the planning area located easterly of De Anza Boulevard is limited to 25% of total land area (.25 x 70 total acres equals 17.5 potential commercial acres).

The land use intensity within the planning area is controlled by the 16 one-way Traffic Intensity Performance Standard explained in greater detail in the Transportation Element of the Plan.

The Plan also encompasses a policy statement which eliminates or severely restricts the degree of accessibility to De Anza Boulevard from private properties that front the street. Access to smaller properties which front on the west side of De Anza Boulevard between Lazaneo Drive and Mariani Drive will be provided through a mutually developed private circulation system which will interconnect each property. The properties fronting on North De Anza Boulevard will also be required to provide a 50 ft. landscape setback area measured from the curb which can vary in

Appendix B
Stevens Creek Blvd.
Plan Line - Action
Plan, February 1978

North De Anza Blvd.
Conceptual Plan
February 1976

LAND USE/COMMUNITY CHARACTER

depth. A more precise definition of design policies and procedural policies are contained within the Planned Development zoning district for the North De Anza Boulevard planning area.

Area 4 - Town Center

The Town Center Planning area contains approximately 100 acres located within the southeast quadrant of the intersection of Stevens Creek Boulevard and South De Anza Boulevard. The northern half of the area is dominated by the Cali Mill, some limited commercial activities, and by agricultural uses (apricot orchard and drying sheds) which surround the Cali plant site. The southern half of the site is occupied by the Civic Center (City Hall and Library) and general and medical office uses. Rodrigues Avenue generally serves as a boundary line between the undeveloped northern properties and the developed southern properties.

The close proximity of approximately 50 vacant and semi-developed acres to the historical crossroads of the community affords the property owners and the Community and opportunity to create a development complex which fulfills a number of community objectives. The accompanying master plan for the 50 acre Town Center property (Figure 2G) will help implement the objectives outlined below:

Community Identity

Town Center will contain a diverse mix of office, office serving commercial, entertainment and restaurant activities. The diverse land use mix, coupled with generous plazas and a varied building form, will provide identity for the City's historical commercial district. If determined feasible by future traffic studies, the existing Cali Mill could be replaced by multi-storied buildings with a variety of shapes. The buildings would maintain a landmark structure in the corner which will visually strengthen the role of the Town Center as the symbolic and functional City Center.

Provide Housing Opportunities

The large size of the property coupled with its proximity to major arterials and its separation from large single-family residential districts, provides an opportunity to construct housing at greater densities. The increased density will provide greater housing opportunity for employees who are attracted to the City's expanding industrial firms.

Open Space

A master development plan for the 50 acres will result in an assemblage of open space to provide functional green space and hard plazas which would meet the needs of employees and shoppers and the community in general.

The Land Use Plan

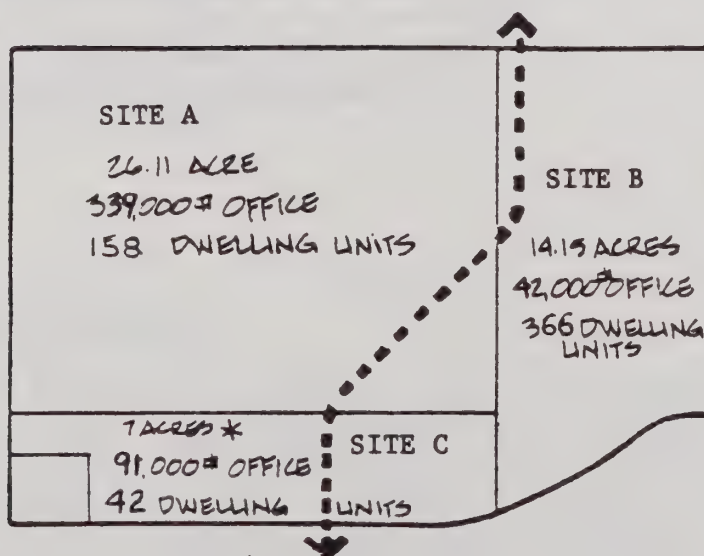
Development Intensity - Traffic and Sewer Constraints

The Land Use Intensity for Town Center is constrained pending completion of a study to analyze the capacity of existing sewer lines and traffic capacity of City streets. During the interim, the intensity of the development permitted in Town Center will be guided by the principle that Town Center property owners will be allowed development intensity no greater than that allowed other individuals owning property served by Stevens Creek Boulevard and North De Anza Boulevard. Although land use intensity is restricted, land use and design policies embodied in the accompanying diagram describe how development intensity increases can be accommodated pending a solution to traffic and sewer problems.

Land Use Type and Intensity by Property Ownership

Figure 2-E identifies land use type and intensity by property ownership. The building intensities for each property owner depicted in Figure 2-E reflects an allocation system for permitted development intensity on the entire fifty acre site. Property owners may agree to reallocate development intensity and land use type commensurate with the design guidelines established on Figure 2-G.

FIGURE 2-E
Town Center
Development Intensity
By Major Ownership



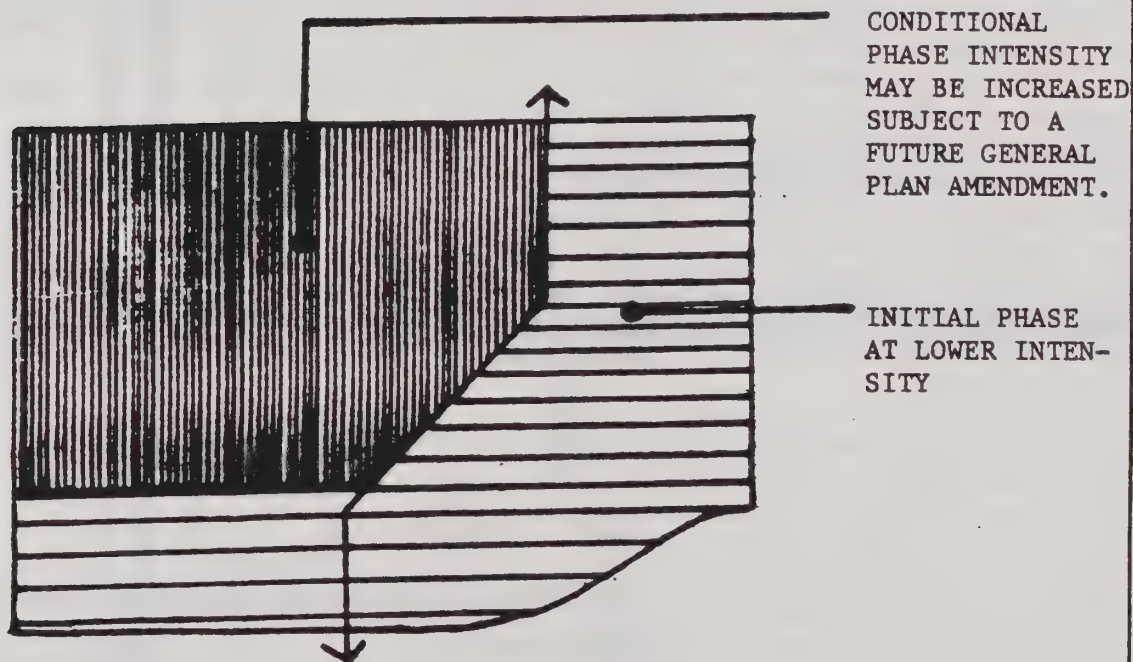
Note: See trip accounting on Page 2-44 Figure 2-G

NOTE: Related commercial or additional residential is permitted in lieu of office provided vehicle trips do not exceed 16 per acre.

Conditional Phase of Development Activity - Cali Property

Figure 2-F identifies the area that could receive a greater intensity of development should the General Plan be modified to accommodate higher levels of development in the Town Center and other areas within the community. The identification of a sub area that can accommodate additional growth potential is important because it will ensure that design controls embodied in the current plan can accommodate a transition to a more intense land form should the community make that decision at a later date.

FIGURE 2-F



Urban Design Policies

Figure 2-G is an urban design policy plan which identifies the general location of building areas, vehicular access points, and public open space. The design policy plan is applicable to building intensities identified on Figure 2-E and higher building intensities should a future General Plan Amendment allow greater intensity. As a practical matter, the likelihood for the development of public amenities such as the public plaza and open space is greatly enhanced as development intensity increases. Other community benefits such as placement of vehicular parking in

DESIGN POLICIES

1. The building area boundaries delineated on the diagram are general. Refer to Figure 2E and 2F for land use intensity criteria.
2. Building heights shall be limited to approximately 45 ft. (2-3 stories).
3. The major elements of the open space system for the Town Center Planning Area consists of a public plaza within the intersection which is linked by pedestrian connector to a passive and active open space system near the center of the Planning Area. The open space system is intended to provide passive space for shoppers and employees utilizing the facility and for future residents of the Town Center Planning Area. The central open space area will provide adequate space to satisfy the above needs.
4. The major and minor vehicular access points are not precisely fixed. The objective of the circulation system is to direct traffic generated within the Planning Area to Stevens Creek Boulevard. Utilization of Torre Avenue is intended to avoid congestion points at the intersection Stevens Creek Boulevard and De Anza Boulevard and to limit the potential for development traffic to enter the adjoining residential communities.

DE ANZA

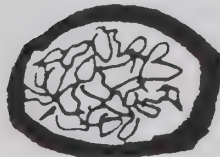
RODRIGUES



PUBLIC PLAZA

O O O O

PEDESTRIAN CONNECTOR



OPEN SPACE



GENERAL BUILDING AREAS



MAJOR VEHICULAR ACCESS



MINOR VEHICULAR ACCESS

FIGURE 2G
REV 1-23-82

partially depressed structures and the construction of facilities to more directly integrate mass transit into the development are also dependent upon higher building intensities than those depicted on Figure 2-E.

Open Space

The open space network proposed by the development ranges from the installation of a plaza for passive activities near the Crossroads intersection to the construction of passive and active spaces near the center of the planning area. The central open space area is intended for passive activity related to sunning, people watching, informal eating in conjunction with the adjoining restaurants, and on occasion, community activities such as art exhibits sponsored by a community group or tenants within the complex. Active open space facilities will be designed to accommodate informal group play activities for members of the community as a whole and residents living within the Town Center planning area.

The Town Center residents living east of Torre Avenue will be able to gain access to the open space area through clearly defined pedestrian corridors. The residential complexes would be self-contained in terms of providing active recreation activities. Accordingly, the residential developers would be given 50% credit for open space requirements. In lieu fees for the remaining 50% requirement will be collected and used for eventual purchase of park space as provided by the parks element of the General Plan.

Transportation Planning

The building intensities permitted on Figure 2-E do not require a major widening and improvement program for the intersection of De Anza Boulevard and Stevens Creek Boulevard. The improvements, would however, require widening improvements of De Anza Boulevard to conform with the existing street configuration on the portion of the roadway located north of Stevens Creek Boulevard. The expansion of Torre Avenue from Rodrigues Avenue to Stevens Creek Boulevard will be installed in conjunction with the development of properties located east of Torre Avenue.

The exact sequencing of street improvements will be determined in conjunction with development applications. A traffic signal at the intersection of Torre Avenue and Stevens Creek Boulevard will be installed. The intersection design would provide for traffic controls to prohibit the movement of traffic from Vista Drive across Stevens Creek Boulevard to Lazaneo Drive.

The Stevens Creek and De Anza Boulevard frontage will be designed to accommodate bus turn-outs, and a pedestrian circulation scheme will be developed to facilitate the movement of transit patrons. The design plan depicted by Figure 2-G denotes major access points into the property from De Anza Boulevard, Stevens Creek Boulevard, and the minor internal streets.

LAND USE/COMMUNITY CHARACTER

2-44

The planning policy plan will permit property owners to develop independently. The review process for individual developments will address reciprocal access and parking agreements and street and signalization improvement obligations of individual developers based upon an equitable benefit formula.

FIGURE 2-G
TOWN CENTER TRIP ACCOUNTING
BY MAJOR OWNERSHIP

CONDITIONAL PHASE

SITE A CALI FAMILY

418 TRIPS

TRIP CREDIT

26.11 ACRES X 16/ACRE = 418

TRIP GENERATION

| <u>USE</u> | <u>SQ. FT.</u> | <u>FACTOR</u> | <u>TRIPS</u> |
|-------------|----------------|---------------|--------------|
| OFFICE | 339,000 | 1/1000 = | 339 |
| RESIDENTIAL | 158 D.U. | .5/D.U. = | 79 |
| TOTAL | | = | <u>418</u> |

INITIAL PHASE

SITE B MAY INVESTMENT (TOWN CENTER PROPERTIES)

226 TRIPS

TRIP CREDIT

14.11 ACRES X 16/ACRE = 226

TRIP GENERATION

| <u>USE</u> | <u>SQ. FT.</u> | <u>FACTOR</u> | <u>TRIPS</u> |
|-------------|----------------|---------------|--------------|
| OFFICE | 42,000 | 1/1000 = | 42 |
| RESIDENTIAL | 366 D.U. | .5/D.U. = | 183 |
| TOTAL | | = | <u>225</u> |

SITE C LINCOLN PROPERTIES

112 TRIPS

TRIP CREDIT

7.0 ACRES X 16/ACRE = 112

TRIP GENERATION

| <u>USE</u> | <u>SQ. FT.</u> | <u>FACTOR</u> | <u>TRIPS</u> |
|-------------|----------------|---------------|--------------|
| OFFICE | 91,000 | 1/1000 = | 91 |
| RESIDENTIAL | 42 D.U. | .5/D.U. = | 21 |
| TOTAL | | = | <u>112</u> |

TOTAL 47.26 ACRES X 16

756

LAND USE/COMMUNITY CHARACTER

2-45

Area 5 - Vallco Park

The Vallco Park planning area is bordered by Stevens Creek Boulevard on the south, Homestead Road on the north, the City limit line on the east and by the easterly edge of residential lots and Portal Plaza Shopping Center on the west.

The park functions as a mixed use, highly urbanized regional commercial and employment center. The Park is located at two major gateways to the City - Wolfe Road and Stevens Creek Boulevard. To emphasize its role as a major node, building heights in Vallco may exceed normal height limits imposed throughout the community. A multi-story hotel is planned for the northeast quadrant of Wolfe Road/Route 280 Freeway interchange. The hotel site is designated on the General Plan Land Use Map.

Consistent with the policies in the Housing Element, the City may allow high density residential development at the discretion of the property owners.

The intensity of development in Vallco Park is presently limited by the "Construction Phasing Memo for Vallco Park", dated July 15, 1974 as modified by the General Plan Amendment approved on September 16, 1974. The memorandum links the development of Vallco Park to the staging of roadway improvements and the capacity of the surrounding street system. The September 16, 1974 amendment resulted in a temporary reduction of the allowable square footage for the Regional Shopping Center from 1,028,000 to 1,020,000 sq. ft. The larger square footage figure can be reinstated when predicted traffic congestion levels are reduced by transportation improvements or a reduction in land use intensity for another site within the Park.

Circulation Section
page 4-18

Construction Phasing
Memo for Vallco Park
July 15, 1974

Area 6 - South Saratoga-Sunnyvale Road

The south Saratoga-Sunnyvale Road planning area is bounded on the south by Prospect Road, on the north by Rainbow Drive, on the east by Saratoga-Sunnyvale Road, and on the west by an existing single-family residential tract. The area consists of a fragmentation of developed and undeveloped parcels, consisting of an existing shopping center, freestanding office and commercial facilities, and residential rental units. Also, the area contains several large parcels which are only marginally improved with single-family homes and subject to possible redevelopment. Development of this area is of special concern due to the fragmented ownership and incremental development pattern which has occurred thus far.

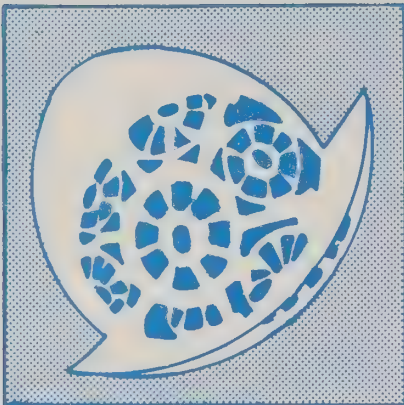
The land use in the area is designated for commercial and residential uses. The commercial land uses shall be restricted to the present commercial developments while the remaining undeveloped properties shall be designated for residential land uses at a density of 5 to 10 dwelling units per gross acre. If a significant portion of the area is either jointly planned and/or developed, the area may be developed at a residential intensity of up to 20 dwelling units per gross acre, or with commercial land uses or a combination thereof. Also, as the subject area represents a major gateway into the City, the City will require significant landscape setback area consistent with the other major entrances to the community.

Area 7 - Catholic Church Property

The 735⁺ acre "Catholic Church" property is designated for residential purposes, with the land use intensity to be based upon the ½ acre Foothill modified slope density formula described on the adopted land use map.

Since the extent of surplus land (land available for development) is not known, the development area on the land use map is general. In no case shall the total number of dwellings constructed on the property exceed 400.

As stated in policies 5-23 and 5-24, and on figure 5-F, the use of all or part of the "Catholic Church" property as an open space preserve or an urban park is encouraged.



3

HOUSING

Introduction

For most families the purchase of a home is the largest financial investment, and quite possibly the largest emotional investment, which they will make. When choosing a home, families consider the quality of construction, neighborhood integrity, availability of public and private services, quality of schools and geographic location before committing themselves to a specific community. Accordingly, housing is a crucial factor in establishing the character of the City. The type, age, cost and location of shelter will influence the composition of population, as well as the degree of visual interest, and the social amenities which the community offers.

During the five-year period 1973 to 1978, the cost of purchasing a home in Santa Clara County doubled, bringing the sale price of a representative single-family unit to \$77,000. This price range, already beyond affordability for the average household or first-time buyer, will probably continue to climb as demand remains at or above the present level.

The housing demand spiral reflects the discrepancy between the dramatic increase in employment opportunity which the County has experienced, and a housing supply which has not kept pace with the expanding job market. Previous trends in Santa Clara County favored new construction of one-family units at relatively low density, disproportionate to the number of jobs created by the expanding industrial sector. If these past development policies continue, the County will experience a severe housing shortage by 1990. A Countywide housing shortage implies that shelter cost will continue to rise as unfulfilled demand bids up prices on a limited supply. Commute activity will increase as more families seek affordable housing in outlying areas, resulting in more traffic congestion, degraded air quality, and further depletion of energy supplies.

Cupertino recognizes that certain housing-related issues extend beyond City boundaries, and encompass regional phenomena which must be taken into account at the local level. For example, the State Housing Element Guidelines suggest a procedure called the "Fair-Share Allocation Plan", which is intended to identify the housing needs within a region and then allocate each community's fair-share for providing below-market housing. The Housing Element recognizes the fair-share allocations provided by the State Department of Housing and Community Development, as well as the needs generated within the community through land use policies.

For purposes of this plan, the Sphere of Influence boundary will define the Cupertino community, and solutions presented herein anticipate housing-related concerns through 1990.

These solutions are presented as Cupertino's best effort to meet the community's housing needs within the City's physical limitations.

Calif. Department of
Housing & Community
Development - Housing
Element Manual

Objectives

The housing problems that Cupertino faces are typical of a community which has passed its initial growth years and must now balance high demand for housing against a limited land supply and a market not conducive to residential development.

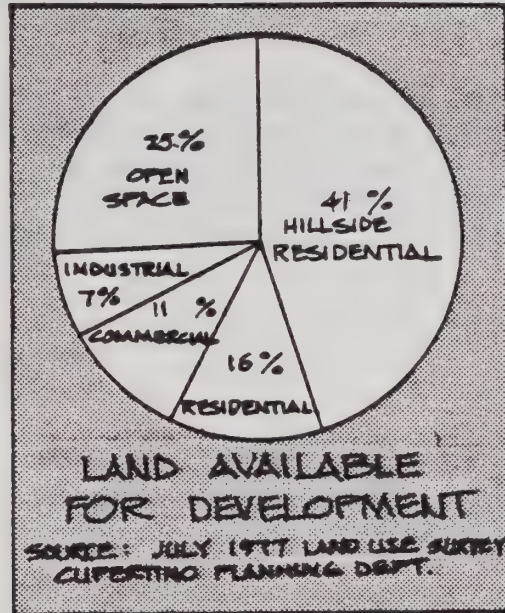


FIGURE 3 A

Only 30% of land within the Urban Service Area is available for development, and 41% of that available land is within the hillside planning area of the community. The hillside lands, due to topographic, geologic, and environmental sensitivities, will most probably continue to build out in a low density form.

On July 1, 1979, Cupertino expanded its Urban Service Area boundaries to include an additional 934 acres. A portion of the area was formerly incorporated in the City of San Jose, and the remainder (unincorporated pockets) were within San Jose's Sphere of Influence. Statistical data, not currently available, will be included in this section of the General Plan upon completion of the 1980 Census.

Cupertino's desirability as a residential community is directly related to its location in the cosmopolitan San Francisco Bay Area; the school system; the high standard of urban design and development; and, perhaps most important, Cupertino's steady growth as an employment center. Most of the new employees attracted to this community have moderate incomes. However, rapidly escalating housing prices and diminishing selection will hinder their ability to locate in the City.

Accordingly, the first objective of the General Plan Housing Element is to increase housing supply in response to demand created by the City's expanding employment base.

The second is to stimulate a range of choice in available housing types, to suit the varying economic and life-style preferences of the population.

The third objective of the General Plan Housing Element is to preserve the character and integrity of the older unincorporated neighborhoods.

The fourth objective of the General Plan Housing Element is to work toward the elimination of discriminatory housing practices. Accessibility and availability of housing to the physically-handicapped, families with young children, the elderly, and the various racial minorities is essential to solidifying the social fabric of the City.

Housing Problems

The first section of the Housing Element analyzes in more detail the components of the housing market, population and employment characteristics contributing to the housing problems facing Cupertino in 1979.

HOUSING CHARACTERISTICS

Land Use Mix

The 1977 Land Use Survey for Cupertino, in conjunction with a survey performed during the 1979 annexation of a portion of San Jose's Urban Service Area, indicated a total of 15,828 dwelling units within the Urban Service Area of the City. Approximately 63% of the units are single-family and 37% are multi-family dwellings.

1977 HOUSING INVENTORY
CUPERTINO URBAN SERVICE AREA

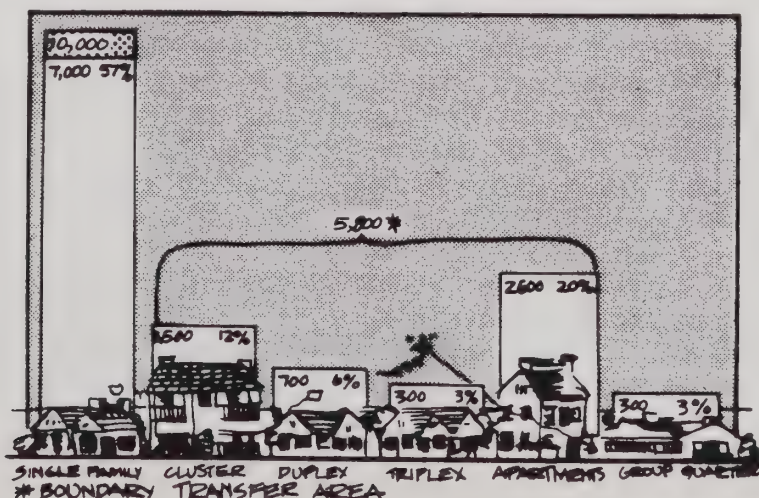


FIGURE 3 B

In 1968, the City experienced a boom year for multi-family construction; a total of 668 units versus 466 for single-family were built. Since that time, multi-family construction has been negligible, while single-family and cluster developments have increased. The supply of multi-family housing is threatened even further by pressures from developers to convert apartments to condominiums. Such conversions would displace a significant number of existing residents within the community, and deplete the much-needed rental housing stock.

If current trends continue, the disparity between single-family and the supply of multi-family housing will increase.

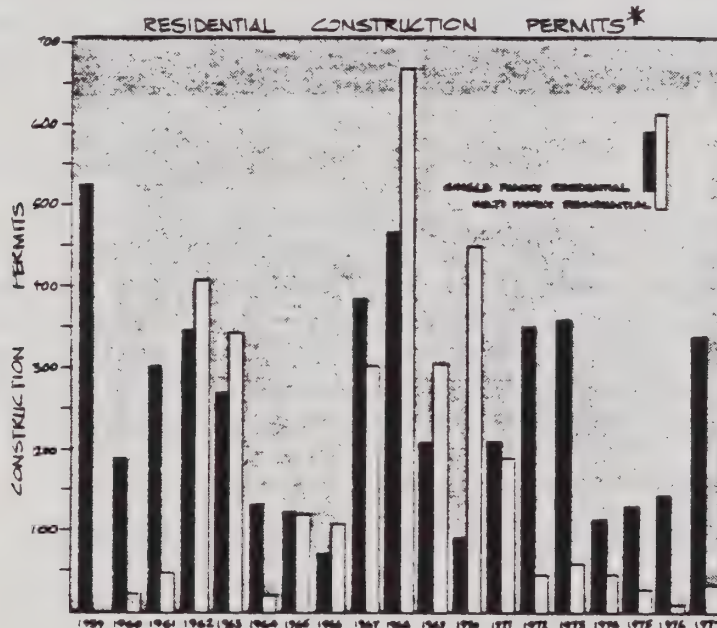


FIGURE 3C

*Information for the boundary transfer area is not included.

Housing Condition

The City of Cupertino housing stock is relatively new, 62% of which was constructed after 1959. Approximately 53% of all single-family dwellings, and 92% of the multi-family dwellings in the City were constructed after 1959.* The condition of the newer housing is relatively uniform and in good repair due to the high development standards and enforcement of strict building codes by the City. Most of the physically-deteriorating units in town are found in older neighborhoods built prior to the City's incorporation under County jurisdiction. These older neighborhoods are composed of a variety of housing types and quality, some of which have begun to decline. These neighborhoods, however, still retain a distinct character which the City wishes to retain.

Since 1974, the City of Cupertino has participated in the Urban County Housing and Community Development Block Grant Program (HCD). The intent of the program is to make Federal funds available to local jurisdictions to address their housing and community development needs.

Cupertino has devoted the majority of its HCD funds to neighborhood preservation, particularly in unincorporated areas. Activities included are rehabilitation of residential structures and physical infrastructure improvements.

The planning process for these activities entails citizen participation for selection and prioritization of activities. Participation by residents in Monta Vista and Garden Gate has resulted in greater neighborhood awareness and pride.

Neighborhood Profiles

In 1975, the average cost of shelter for a Cupertino family within the Urban Service Area was \$280 a month. Meanwhile, in unincorporated neighborhoods like Monta Vista, families paid only \$160 a month. While these unincorporated neighborhoods provided a significant portion of low-cost housing, in most instances these lower-income homeowners did not have adequate budget reserves for routine maintenance and household improvements.

| <u>NEIGHBORHOOD HOUSING AND POPULATION CHARACTER</u> | | | |
|--|--------------------|--------------------|--------------------------------|
| | <u>Monta Vista</u> | <u>Garden Gate</u> | <u>City Urban Service Area</u> |
| % Single-Family | 89% | 34% | 72% |
| % Multi-Family | 11% | 66% | 29% |
| Household Size | 3.06 | 2.66 | 3.01 |
| Median Income | \$15,500 | \$16,700 | \$18,200 |
| Median Monthly Cost of Shelter | \$169 | \$242 | \$279 |
| Source: April 1975 Census, Cupertino Data Base and San Jose Annexation Data. | | | |

Table 3A

These neighborhoods contained the larger concentration of low-income families. Median income for a Monta Vista family of four was \$13,500 in 1975, compared to \$18,200 for a City family.

Because HUD regulations require that the use of HCD funds principally benefit low and moderate-income families, Cupertino has targeted the two neighborhoods with the highest percentage of lower-income families and the most serious indicators of decline for HCD activities

Cupertino Community Development Block Grant Program

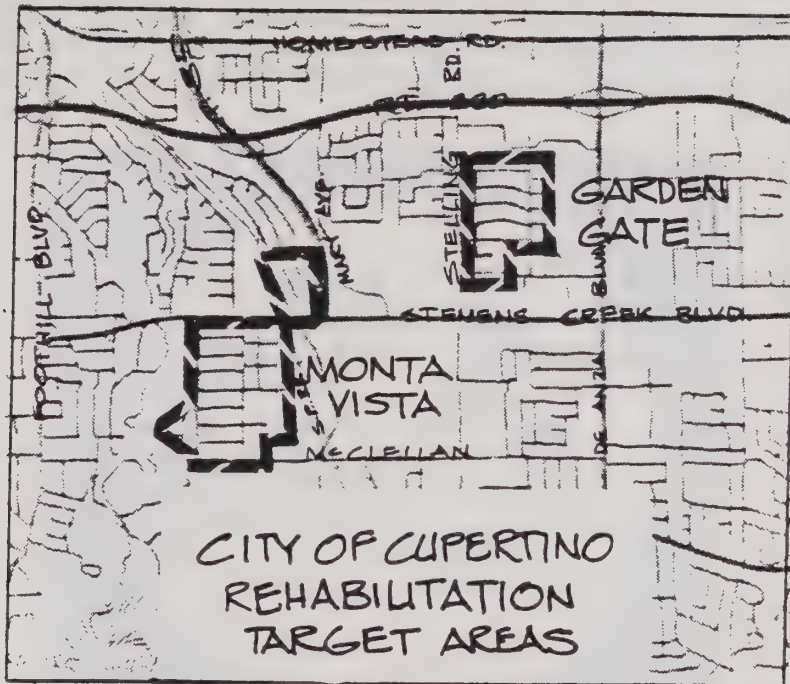


FIGURE 3 D

Newly activated homeowners associations are taking steps to expand Cupertino's preservation efforts in these neighborhoods, and ensure that the established character of these communities are maintained.

MARKET CHARACTERISTICS

Home Ownership

The phenomenal increase in the price of single-family homes in the Bay Area is well documented. Between 1970 and 1977 the median price of homes has doubled and, in some cases, tripled. In 1977, the real estate listing for Cupertino showed that homes averaged approximately \$70,000. New homes now under construction in the City start at \$100,000 and range upward.

| MEDIAN-PRICED HOME | | | |
|--------------------|----------|----------|----------|
| | 1970 | 1977 | 1978 |
| COUNTY | \$23,200 | \$69,100 | \$77,000 |
| CUPERTINO | \$34,100 | \$70,000 | \$88,000 |

(Santa Clara County Planning Department)

Table 3B

* San Jose annexation data not available for this Section.

Some of the increase in price can be attributed to the increased cost of construction. Material costs account for 26% of the increase in home sale prices in the area. The price of raw land has also increased considerably over the past few years as land has become more scarce. Higher prices also reflect a surge in profits and marketing expenses. Prices have jumped from 9.0% in 1967 to 22% of the total selling price of the completed units in 1976, according to a study published in the California Builder.

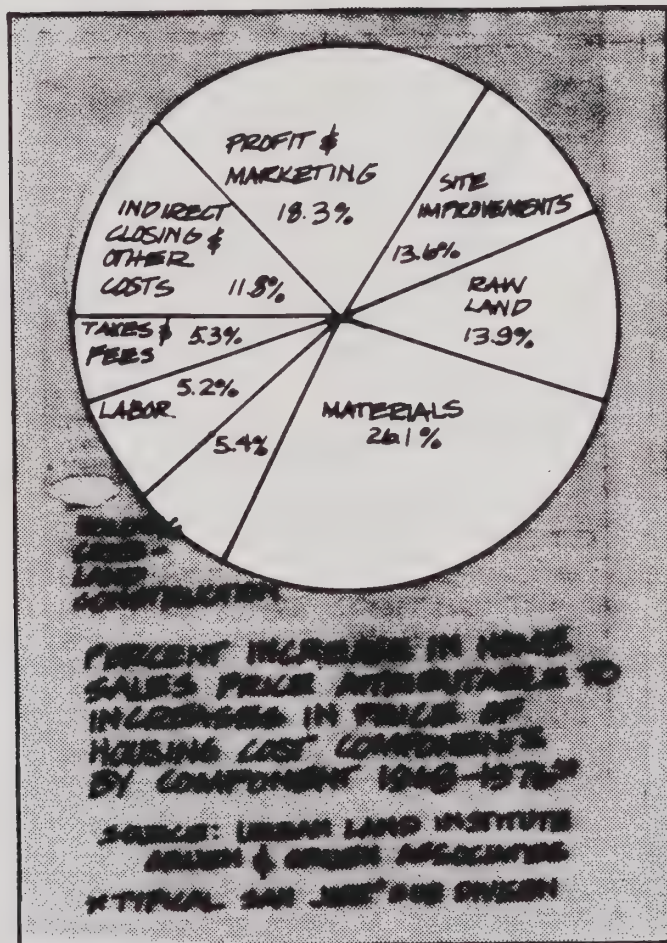


FIGURE 3 E

The high cost of housing is particularly relevant when compared to the purchasing power of the median-income family. From 1971 to 1977 housing prices rose approximately 150% while the median income increased only 43%, in Santa Clara County.

The 1978 median family income for persons living in Cupertino's Urban Service Area is approximately \$25,000 a year, projected from HUD data for Santa Clara County. Assuming that a family spends one-fourth of their income on housing, they could afford to make monthly payments equal to approximately \$520 a month. Homes in Cupertino which are selling for \$100,000 usually require monthly payments approximating \$1,000, including taxes and interests. The disparity between what families can afford and what housing costs is extreme.

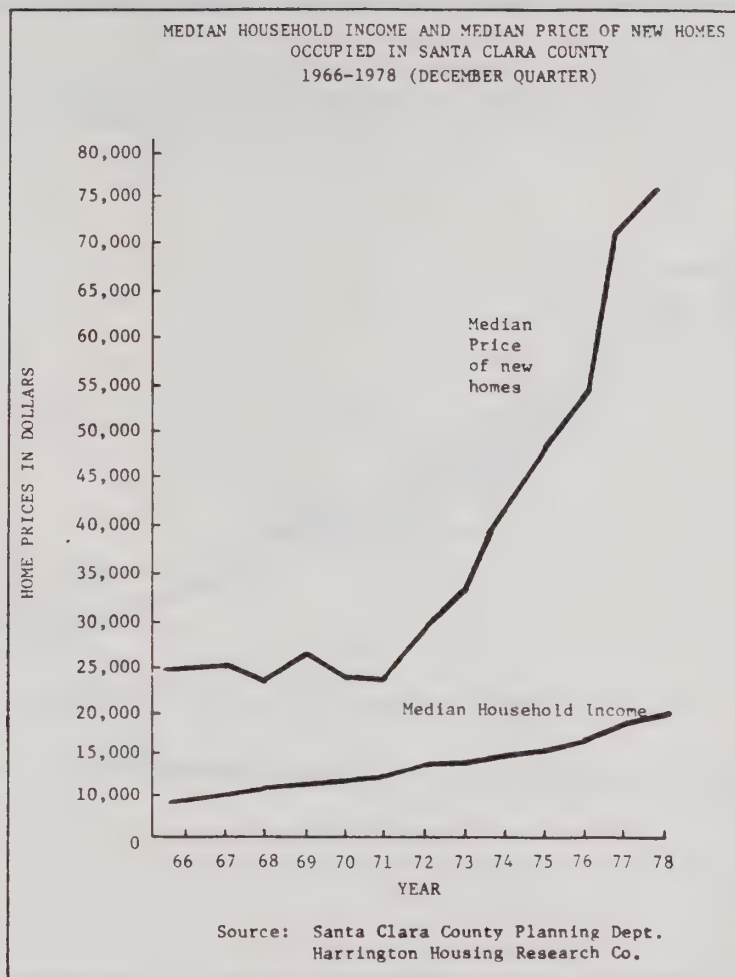


Figure 3F

In the past, older homes were selected by first-time buyers. These homes generally become available as the occupants move-up to newer, more costly units. More recently, this "filtering" process has been severely curtailed, since price increases throughout the market spectrum are forcing current homeowners to retain their present holdings for longer periods than might otherwise be the case if housing costs were not subject to current trends of accelerated demand.

Rental Housing

As the price of single-family homes has skyrocketed, the demand for rental units has increased; yet, the supply has changed very little since 1972. Most of the apartments built recently in the City are duplexes and triplexes rather than large multi-family projects similar to those built prior to 1972.

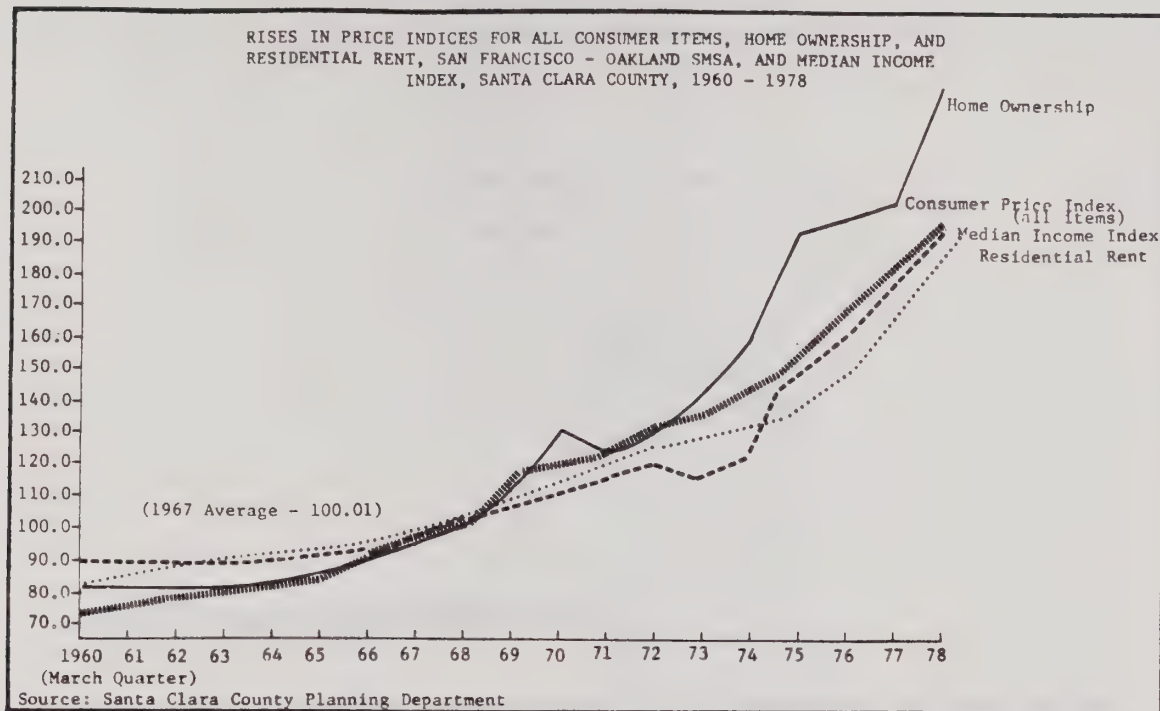


Figure 3G

Apartment development activity has been slow in recent years because construction and financing costs have increased faster than rents, and because investor return has been higher from ownership units. Rental charges rose 20% to 28% from 1973 to 1976, compared to the cost of construction which rose 180%. Financing requirements for multi-family housing have also become stricter and the interest rate for borrowing money to construct apartment units has been higher than the rate for single-family units. Some apartment management corporations fear that rent controls will be imposed if rental prices are set to reflect the true cost of construction. Further, low rental prices of the existing units make it difficult for new rental stock to compete at their higher prices.

A survey of apartment complexes in Cupertino, made in 1978, indicated a vacancy rate of 0.5%. More rental housing is needed as an alternate to high-priced home ownership, as well as a way of providing lower-cost housing for those sectors of the community who need it.

MEDIAN RENTS FOR APARTMENTS
IN CUPERTINO, SEPTEMBER 1977

| SIZE | RENT |
|-----------|-------|
| Studio | \$195 |
| 1 Bedroom | \$245 |
| 2 Bedroom | \$290 |
| 3 Bedroom | \$325 |

Source: San Jose State
University
Apartment Survey

Table 3C

POPULATION CHARACTERISTICS

The City of Cupertino experienced a 45% increase in population from 1966 to 1975. Since that time, the rate of increase has diminished due to shifts in the size of households, reduced numbers of children per household and a slower housing construction rate. About 12,000 new citizens were added to the community through the 1979 San Jose boundary transfer.

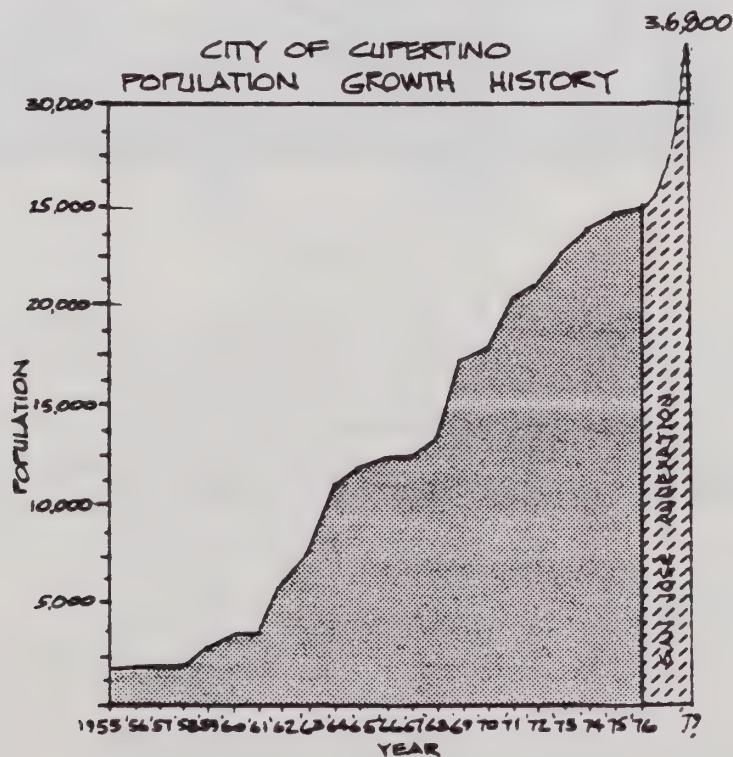


FIGURE 34

In 1966, there were approximately 3.7 persons per household in Cupertino, while in 1975 there were 2.92. The addition of the San Jose area changes the persons per household figure to 3.02.

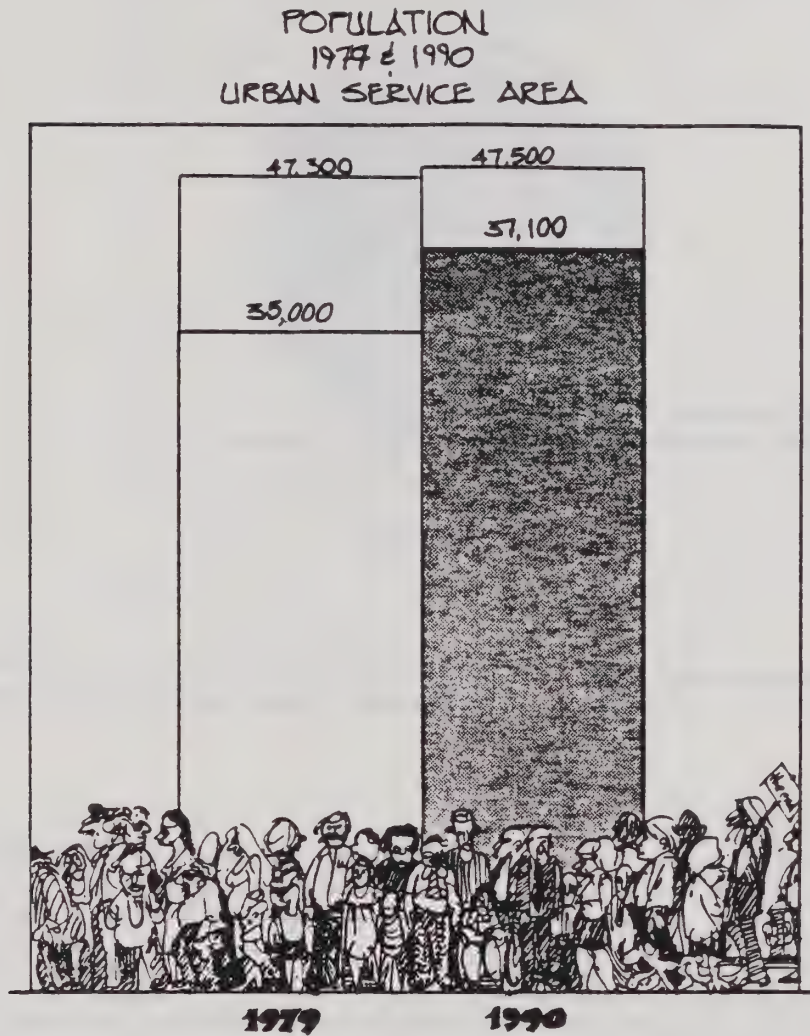


FIGURE 3I

According to ABAG, in 1990 the average household size for Cupertino will be approximately 2.35. This reflects the nationwide trend of fewer births and more single person households. The projected population for Cupertino's Sphere of Influence, including the San Jose annexation area, may be approximately 47,500 people at the time of full build-out of the amended General Plan.

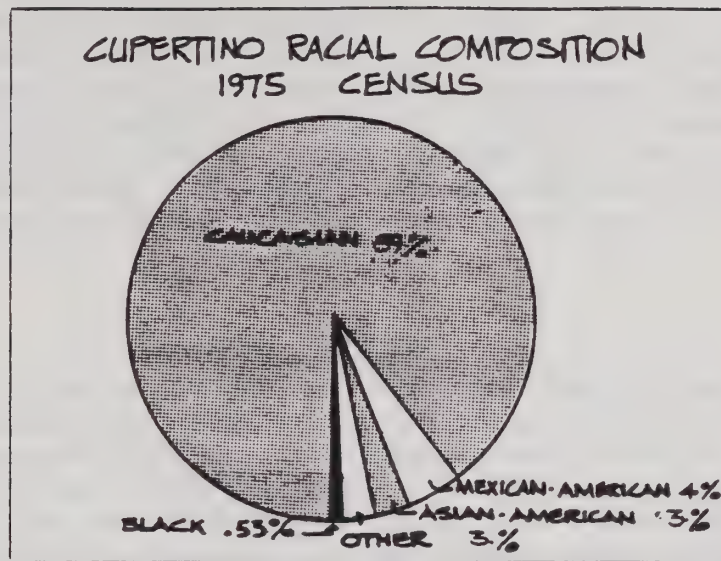


FIGURE 3J

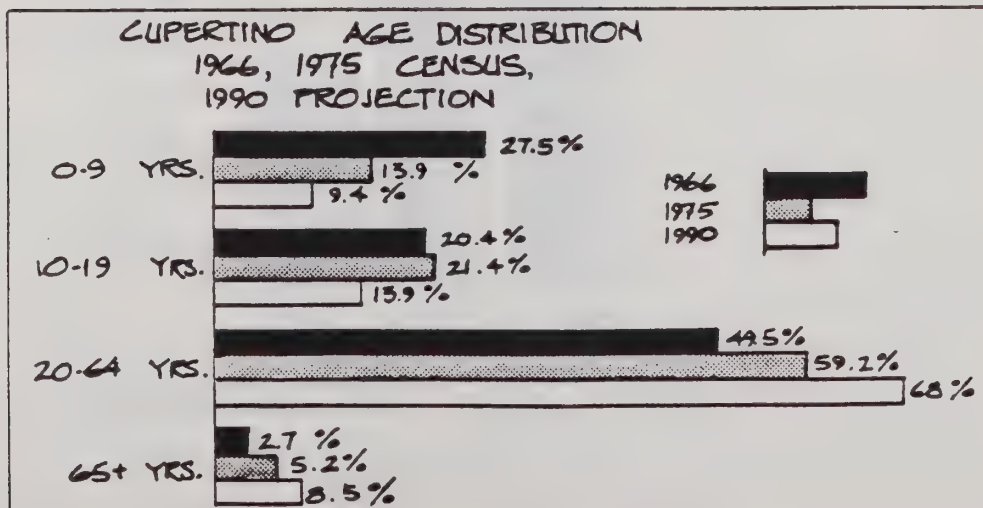
In terms of racial mix, Cupertino is a very homogeneous community, with a very small minority population.

Age*

The age distribution of the population has also undergone a change. The percentage of school-age children has been decreasing, while the percent of persons over 45 and 65 has been increasing. This trend will continue due to the lower fertility rates and aging of the existing population in the City. The enrollment of school-age children has dropped 27% in the Cupertino Unified School District from a peak of 23,120 in 1971 to 16,800 in 1978.

* Boundary transfer area information not included in this section.

FIGURE 3K



The tight, high-priced housing market may cause many families with young children to seek housing elsewhere. By 1982, the elementary schools will be operating at 58% of capacity, and the high schools at 65% if present trends continue. The possibility of school closures will increase, which will present the City, as well as the District, with the problem of what to do with the school sites. An obvious alternative would be to convert unnecessary school sites to residential use.

Income

Cupertino is fifth in the County, in terms of median family income. Although the median income for Cupertino is high relative to the rest of the County, the relationship that is important is income-to-housing costs. Renters in the lower income categories are spending more than 25% of their income on shelter, relative to homeowners in the lower income categories. Rental housing currently provides the only alternative for lower income families to obtain housing in Cupertino. By 1980, as rents increase and rentals become scarce, families who wish to rent may not have the opportunity to locate here.

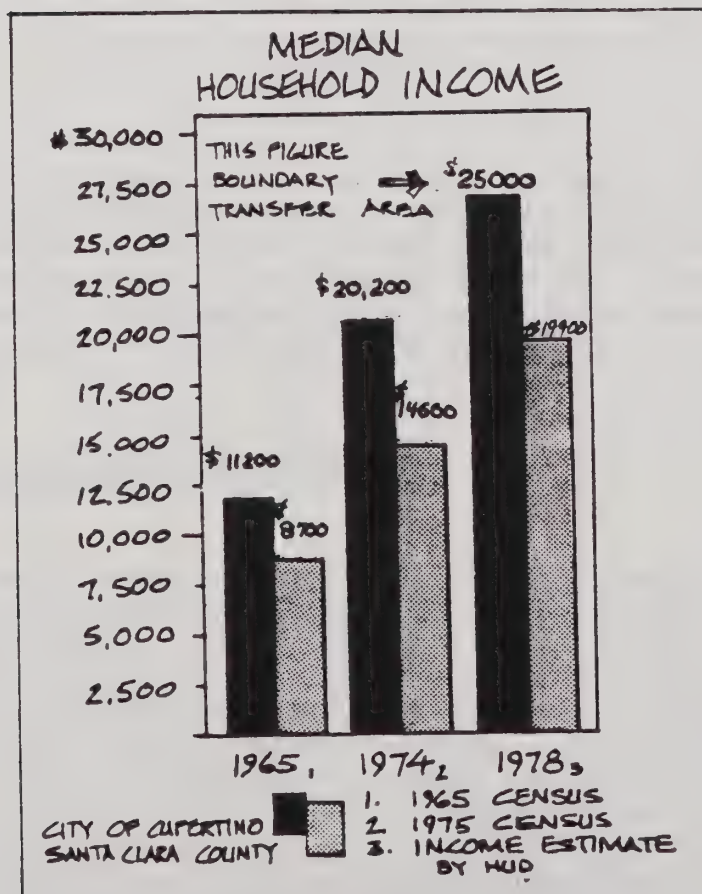


FIGURE 3 L

Handicapped and Elderly

There are two special population groups which have particular needs with regard to shelter: the handicapped, approximately 2.8% of the population (2.56% with San Jose); and the elderly, 65 years and older, approximately 5% (4.4% with San Jose) of the Urban Service Area population.

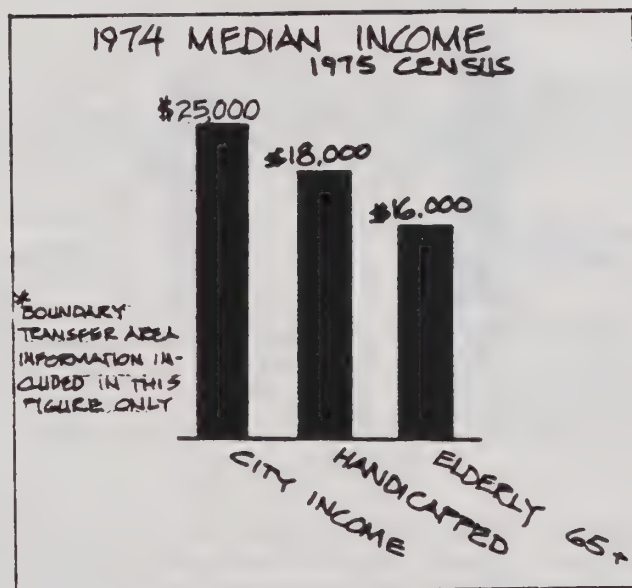


FIGURE 3 M

Persons in these categories generally have an income below the median and have difficulty entering the housing market either for rental or ownership. Also, conventional home design techniques may not fit the physical needs and limitations of these persons. Consideration should be given to provide housing for this segment of the population which will meet their economic means.

EMPLOYMENT CHARACTERISTICS

The relationship between employment and housing plays a major role in the future housing plans for Cupertino as well as the entire County. If the community or the region is unable to provide enough housing for the number of workers who are employed in the area, then those workers will have to come from outside of the community, resulting in longer commute distances, more air pollution, and the social and economic problems associated with the fiscal imbalance between communities. The jobs/housing imbalance issue is a regional problem which cannot be dealt with on a jurisdiction-by-jurisdiction basis. Existing development patterns which have established industrial centers must be taken into consideration in analyzing which communities

supply jobs and which supply housing. The fiscal inequalities between communities, particularly those who must spend a great deal of money to service residential, must be resolved. Those communities which do provide employment should make efforts to increase their housing potential to address the needs of the workers in their community.

Circulation Section -
Balancing Jobs and
Housing
page 4-10

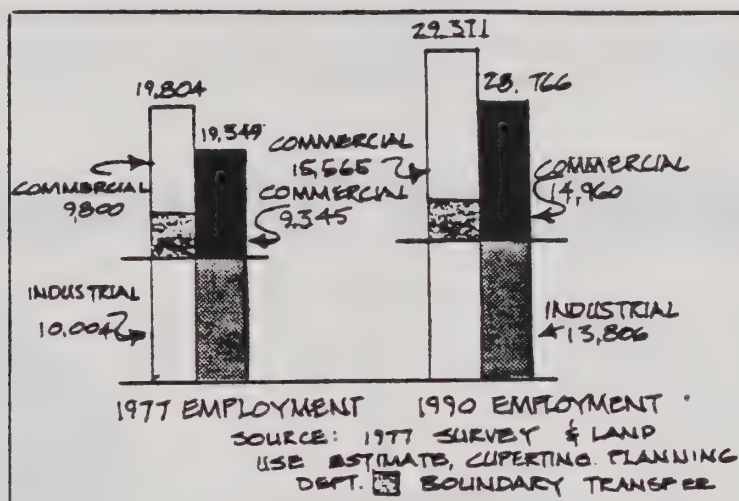


FIGURE 3 N

Cupertino is one of the communities which provides a large employment base in the West Valley Area. There were approximately 19,800 commercial and industrial employees in 1977. By 1990 there is a potential for an additional 9,600 employees, based on the build-out of the amended General Plan.

GOVERNMENT CONSTRAINTS

Cupertino is in a stage of development which could be termed as "infilling". The rapid residential growth that the City experienced in the 1960's has slowed down considerably, leaving small scattered sites within the Core Area of the community with densities as high as 35 units to the acre, and low-density residential development in the hillside.

Most of the policies and programs dealing with increasing housing supply and providing a range of type and price apply to the Urban Core Area.

Development standards will be established for projects of 20 or more units to the acre. Such standards may require deviations from the restrictive height and parking requirements that presently exist.

The most restrictive land use policies of the City apply to the hillsides where development is limited because of the geologic and slope conditions of the land. Low-intensity development is

the goal whereby the City can maintain significant areas of open space, as well as the safety of the future residents in the hillside area.

The City's community development policies reflect a desire for low-intensity, low-profile development, meaning single-family homes of no more than two stories and multi-family of no more than three stories. Any deviation from the established development pattern must take into consideration the impacts on surrounding neighborhoods and the community character. Any new higher-intensity development adjacent to low-intensity residential development must be compatible in terms of use and design.

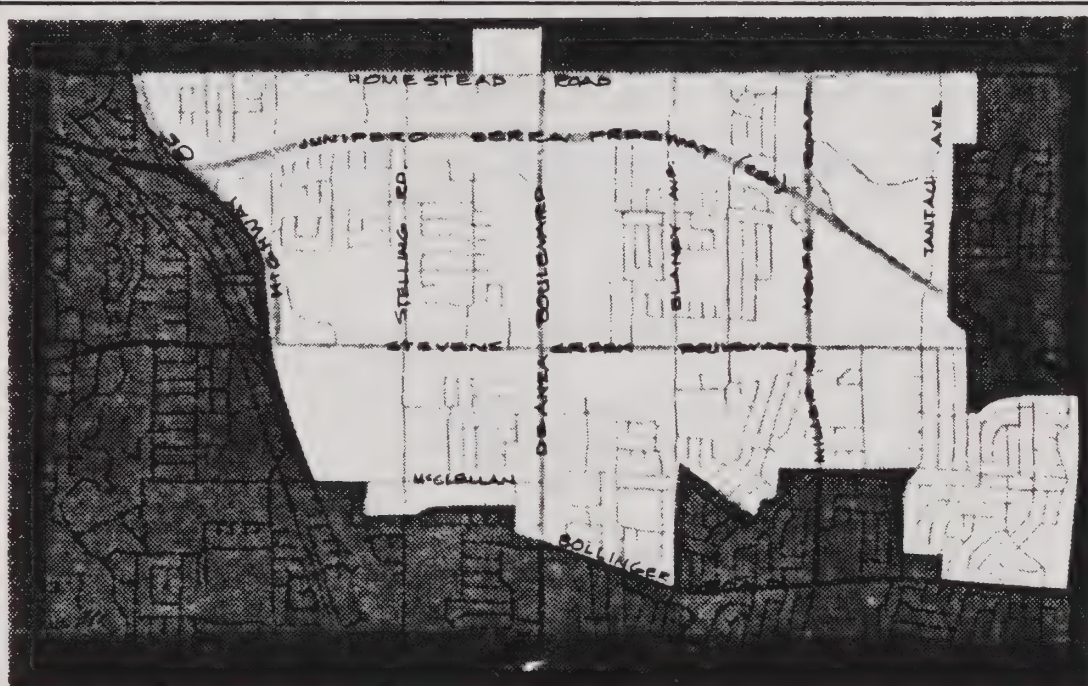


FIGURE 3-0
URBAN CORE AREA



CITY of CUPERTINO · comprehensive plan



The housing problems, as identified in this section, formed the basis of information used to evaluate the City's Land Use Amendment in August of 1978. Awareness of the City's need to provide housing for the expanded employment base of the community prompted the City to increase housing density on key properties within the Core Area of the community. In order to determine suitability for higher densities, individual properties were evaluated particularly with regard to neighborhood character, traffic constraints and design compatibility. The Land Use Amendment resulted in an additional 1,060 units over the previous General Plan build-out forecasts.

SUMMARY OF NEED AND CONSTRAINTS

A summary of the key findings relating to the need for providing housing and the constraints impinging on the City's ability to provide additional units are listed below. Included in the numerical data is information from the San Jose annexation area.

Need

1. Employment projections for Cupertino by 1990 will reach approximately 29,400 jobs.

| EMPLOYEE PROJECTIONS | | | |
|------------------------------|-------------|------------------------|--------|
| Cupertino Urban Service Area | | | |
| | Current | New | Total |
| | 1977 (1) | Positions 1977-1990 | 1990 |
| Industrial - | 10,000 | 3,800 | 13,800 |
| Commercial - | 9,800 | 5,800 | 15,600 |
| Total - | 19,800 | 9,600 | 29,400 |

(1) 1977 Employment Survey, Cupertino Planning Department; 1979 Employment Survey of Annexation Area, Cupertino Planning Dept.

Table 3D

2. At the rate of 1.3 workers per household, the new jobs may result in approximately 7,380 new households who are in need of housing in the Cupertino area.
3. Based on the income levels of the new jobs, approximately 40%, or 2,950 households, will be earning less than Countywide median income (\$20,000). Currently, households making under \$20,000 are unable to afford the average home being sold in Cupertino at \$88,000.
4. Most of the new households will be able to afford only \$400-\$600 a month for shelter, and those below the median can afford less.

5. There are 2,870 households in the City now earning less than 80% of the County median. Of these households, 50% are spending more than 25% of their income on shelter, which means 1,435 households are in need of assistance.
6. Combining the existing households and households generated by new jobs in Cupertino, there will be 4,380 households by 1990 who will be unable to afford market-rate housing.
7. The countywide fair-share allocation suggests that Cupertino provide housing assistance for 2,420 households by 1985; 560 of those families could, theoretically, be housed in existing units. Thus, the City needs to plan for only 1,860 additional low-income housing units by 1985, according to the fair-share model.

Constraints

1. The development pattern and City form has been established, in terms of the street network and scale of buildings.
2. The integrity of existing residential neighborhoods are of primary importance in the evaluation of higher-density developments.
3. Land suitable for high-density residential development is limited, therefore high-density development must be confined to the Core Area of the community which provides the basic service and transportation facilities associated with higher densities.
4. The General Plan build-out will result in an additional 3,800 dwelling units between 1977 and 1990. The additional units reflect the 1978 Land Use Amendment and the San Jose annexation area figures.

| HOUSING PROJECTIONS | | | | | |
|------------------------------|-----------------|----------------------------|---------------------------|------------------------------|---------------|
| Cupertino Urban Service Area | | | | | |
| | Current 1977 | San Jose Annex. 1977 | New Units 1977-1990 | San Jose New 1977-1990 | Total 1990 |
| Single-Family - | 7,030 | 3,000 | 1,555 | 193 | 11,722 |
| Multi-Family - | 5,307 | 587 | 1,943 | 108 | 7,945 |
| Total - | 12,337 | 3,587 | 3,498 | 301 | 19,667 |

Table 3E

The City recognizes that there is a relationship between its employment base and housing opportunity within the community. That relationship is a compelling indication of future social needs and housing demand. Because of the limited land available for new residential construction, even at higher-density levels,

and because the City's geographic development pattern has been firmly established, Cupertino cannot realistically expect to meet its total anticipated housing needs by 1990.

FAIR SHARE ALLOCATION

In response to the concerns expressed by local jurisdictions with regard to their ability to respond to housing needs within the community, and the State of California's concerns with families statewide who are unable to afford market-rate housing, the State Department of Housing and Community Development (HCD) established the concept of "Fair-Share Allocations".

The principle of fair-share planning is tied to three primary objectives:

1. The expansion of housing opportunity for all economic segments of the community.
2. The improvement of access to employment and non-housing related opportunities for all economic segments of the community.
3. The equitable sharing of responsibility among localities for addressing the housing needs of all economic elements of the community.

In February, 1979, the California State Department of Housing and Community Development published a "Fair-Share Allocation Plan for the Cities and Counties of the ABAG Region".

The Planning staff of the County of Santa Clara used the methodology described in the plan to determine each City's responsibility for addressing the needs of lower-income households within the entire County.

According to preliminary estimates published in May, 1979, Cupertino's share of the countywide estimate is to provide housing for 2,422 low-income households by 1985. The methodology assumes that, if current trends continue, the City would meet the needs of only 560 low-income families. Thus, Cupertino would need to accommodate an additional 1,860 low-income households by 1985 to meet the City's fair-share obligation.

Goals and Policies

The policies and strategies in the program section of the Plan are based on a realistic appraisal of the City's ability to fulfill a fair or partial portion of its anticipated housing demand. Clearly, some future potential residents will be excluded from locating in Cupertino. However, within the wider

objective of integrating new households into the established character of this community, procedures described are just, compassionate and are within the capabilities expected of government in response to human needs.

The Housing Assistance Plan for Cupertino, which is part of the broader Housing and Community Development Block Grant Program, requires that the City address 15% of their identified need. It is hoped that the programs within the Housing Element will be able to realize that objective as a minimum goal for the Cupertino community.

INCREASING HOUSING SUPPLY

Goal A: Increase the supply of residential units in order to achieve a greater opportunity for housing for current and future Cupertino employees and residents.

Housing stock can be expanded through two principal strategies; increase land available for housing developments and increase permissible density levels at which new dwellings may be built.

Increased Land Availability

The 1978 Land Use Amendment to the General Plan increased the potential number of units in the community by 1060 over the previous plan.

Any additional conversion of commercial and industrial land to residential use would be up to the property owner or a re-evaluation of the Land Use Plan by the Planning Commission and City Council.

The City Council recognizes that by making more land area available for residential development, potential resident/workers are better able to establish their homes in Cupertino.

Policy 3-1: Private owners of industrial or commercial properties shall be assisted by the City to expedite General Plan Amendments to convert such holdings to residential usage.

The remaining undeveloped commercial and industrial land is accounted for in the 1990 employment projections, at 40 employees/acre industrial and 35 employees/acre commercial. New developments which are more intensive than this should be evaluated in relation to the projections and the housing needs of the community.

Policy 3-2: Labor-intensive or large-scale commercial/industrial development, which exceed the values used in making the projections, shall be assessed for its impact on the community's ability to provide anticipated housing and educational services.

Increase Permissible Density Levels

The Core Area of the City provides the greatest opportunity for mixed use and increased densities. An established street network, access to public transportation, shopping, and employment make the Core Area suitable to higher concentrations of urban population.

Policy 3-3: Increased residential densities shall be directed to the Urban Core Area, as opposed to the outlying "fringe".

Policy 3-4: Density levels designated in the General Plan may be exceeded on projects which are found to satisfy a social goal of the community.

Innovative Techniques

A number of innovative approaches are available as a means of increasing the housing supply. The staff should be constantly aware of new design ideas which could be passed on to developers of major commercial, industrial, and residential projects.

Policy 3-5: Developers are encouraged to follow innovative design concepts which integrate residential and non-residential uses within a single project.

A general study should be made by the staff to explore other methods for increasing the housing supply.

Policy 3-6: The staff shall explore and recommend appropriate innovative methods for increasing the supply of housing.

Variations of Housing
Type
page 2-19
Policy 2-20

PROMOTE HOUSING RANGE

Goal B: Promote and maintain a fully varied range in price and type of housing in Cupertino for all segments of the community.

Increasing the amount of land allocated for residential development, and increasing permissible density beyond present levels will help increase Cupertino's housing supply. However, these actions alone will not guarantee that new construction will encompass the entire spectrum of household types and economic capabilities of potential new residents.

Local Actions

One of Cupertino's major objectives is to distribute low and moderate-priced housing throughout the community in such a way that it does not impact or concentrate a particular type of housing in only one section of the City. This goal corresponds with those of the U.S. Government to disperse Federally-assisted housing in local communities.

Policy 3-7: The City of Cupertino shall require a mix in the price of housing units in new subdivisions and apartment complexes as a way of distributing low and moderate-cost housing throughout the City with the assurance that the housing become a permanent source of shelter for low/moderate income households.

The local program which can work to provide a permanent supply of moderate-priced housing that is scattered through the community is the Below-Market Rate Program which has been successfully used in Palo Alto.

Policy 3-8: OWNERSHIP - All new residential ownership developments of ten or more units, at a density exceeding six dwelling units per acre shall provide not less than 10% of the units at below-market rates to qualified low or moderate-income families.

The below-market rate (BMR) strategy is a key mechanism in the General Plan to provide moderate-priced housing. A certain portion of the units within new developments shall be set aside at a fixed price, which is below the market price of other units in the project. The BMR price shall be within the means of the low and moderate-income household. In 1978, the median income for Santa Clara County was \$20,000. Only qualifying families

Procedural Manual
for the City of
Cupertino Below
Market Rate Housing
Program

who meet the income, residency and employment requirements established by the City may obtain the unit. The resale of the units shall be limited in selling price, and will only be available to other qualifying families.

The BMR strategy is structured to provide a long-range supply of affordable housing for moderate/low-income households. Accordingly, filing of appropriate legal documentation to ensure that BMR units continue to be available to subsequent, qualified purchasers must precede construction and occupancy of new units.

The architectural and site design concepts utilized in the below-market rate units shall be substantially similar to the architectural quality of market-rate units.

Policy 3-9: RENTAL - In all new residential rental developments of ten or more units, not less than 10% shall be retained for rental, in accordance with the Section 8 Housing Assistance Payments Program.

The rental program would operate in a manner similar to that of the BMR ownership described above. Fair-market rent rates under Section 8 are determined by HUD for the area, and are updated periodically to accommodate inflation and cost-of-living increases. Administrative procedures would be controlled by the Department of Housing and Urban Development (HUD) or some other locally-qualified agency. The Housing Authority of the County of Santa Clara is qualified for administration of the Section 8 Program in Cupertino. The program would not entail expanded organizational costs for the City.

Should a problem arise with regard to the availability of rental assistance funds for the Section 8 Program, the developer would not be required to enter into the Section 8 Program until such time as a vacancy occurred in the project concurrently with the availability of Section 8 funds.

Other Government Programs

The number of units that the City can offer under the BMR Program is limited. If the eligible parcels are built to the maximum density, the City can expect to capture approximately 186 units. Additional efforts are needed, utilizing funds available from other levels of government, to supply moderate-priced housing.

Policy 3-10: The City shall foster a conducive environment for attracting low and moderate-priced housing programs financed by other levels of government.

The most substantial of the direct government involvement programs is the Section 8 Housing Assistance Plan, funded by the Department of Housing and Urban Development. The program provides direct rental assistance to eligible families. Currently, in Santa Clara County the most active segment of the program is the Existing Housing section. Cupertino has not captured a realistic share of the assistance available; there are 1730 units Countywide, and only 13 in Cupertino. The greatest obstacle to program implementation in Cupertino is the low-rent maximum set by HUD, and the somewhat restrictive nature of the program. The City should maintain current information regarding the disparity between existing and HUD-allowable rents, and owners objections to the program and make appropriate recommendations to effect any desired change.

Policy 3-11: Encourage modification of Federal and State regulations regarding assisted housing programs to facilitate greater participation by Cupertino in those programs.

The funds for new construction of Section 8 units have become increasingly available and more attractive to developers in the Cupertino area. These family-oriented Section 8 projects are usually concentrated in one development. Although the City is primarily interested in dispersing moderate-priced housing, it is recognized that in some instances this goal is not always possible. The overriding objective of the plan is to provide housing for all segments of the community and, to this end, it may be necessary to cluster moderate-priced housing.

Policy 3-12: Residential developments financed through State or Federal assistance, like Section 8, which are primarily for the low/moderate-income family, will be permitted in Cupertino with assurance that developments meet the City's design and service criteria.

Development Cost Underwriting

The City recognizes that in some cases a developer may not be able to supply units at a rate affordable to the low and moderate-income household because of high construction and financing costs. In these cases, the City has the ability to require fewer BMR units or to provide funds to partially defray the cost of developing below-market housing.

Policy 3-13: The City shall make HCD funds available to developers to help defray costs inherent in meeting or exceeding the requirements for supplying below-market housing.

Housing and Community Development funds may be made available by the City to help developers meet the objectives of the Housing Assistance Plan and the Housing Element. Priority shall be given to those projects which will provide the most units. Proposals shall be considered on a "first come, first served" basis for those projects which will exceed the 10% BMR requirement or provide Section 8 units.

Another way HCD funds could be used to provide low and moderate-priced housing is through site acquisition of appropriate parcels. Properties such as school sites not designated for parks in the Open Space Plan, surplus State land, church properties, etc. may provide opportunities for increasing the City's supply of low and moderate-priced housing. Parcels purchased with HCD funds could then be made available to private developers or a non-profit housing corporation capable of constructing low and moderate-priced housing.

Policy 3-14: HCD funds shall be made available for site acquisition for low and moderate-priced housing.

Condominium Conversion

Rental housing is the primary source of moderate-cost shelter in the City of Cupertino. Rental housing also represents the only housing type which serves the needs of various segments of the community which are not otherwise being met through new construction. Rental housing functions as starter housing for young families, temporary housing for students, and an alternate, less costly form of housing for the middle-aged and elderly who no longer desire or cannot afford home ownership. It also provides a relatively lower-cost housing which is necessary to accommodate the skilled production and manufacturing employees who are vital to the local electronics industry. Many local companies have been leaving the Santa Clara Valley in search of areas where housing costs are within the reach of employees in these categories. Lack of attention to this need may have serious impacts on the local economy.

Uncontrolled conversion of apartments to condominiums may severely compromise the goals of promoting and maintaining a fully varied range of housing within the community, and may diminish the representation of the above-referenced groups in the Cupertino population.

In 1977, single-family ownership units equaled approximately 63% (10,030 units) of the total housing stock of 15,828 units, while multiple-family units (including group quarters) equaled approximately 37% of the housing stock, or 5,798 units. (See graph on Page 3, "1977 Housing Inventory".)

Policy 3-15: Conversion of rental forms of multiple-family housing to condominiums will not be permitted if the proposal significantly diminishes the present number of rental units within the City of Cupertino, or substantially reduces the ratio of ownership-to-rental units in effect at the time of the requested conversion. Also, conversions may not be considered when the rental housing vacancy rate, for the Cupertino market area, is less than 5%.

Condominium Conversion
Ord. (#906)

In addition to serving the needs of the above groups, rental housing fulfills a vital role as the primary source of privately constructed moderate-cost housing within the community. When conversions are permitted, the City should attempt to retain this function by requiring that a significant portion of converted units be made available at a below-market rate.

Policy 3-16: Prior to approving conversions, the City shall ensure that a significant portion of the converted units remain a part of the low/moderate-income housing stock.

Beyond the community-wide impacts on the housing supply, conversion of apartments to condominiums will significantly impact the established lives of tenants who are displaced, especially during periods of low rental vacancy rates when comparable replacement housing is not likely to exist in the Cupertino area. Also, since most rental units in the City of Cupertino were constructed prior to 1970, they may not meet present City standards applicable to newly-constructed apartments or cluster ownership projects. In particular, those provisions relating to undergrounding of utilities, privacy protection, adequacy of common green or private yard space and noise insulation standards may differ. Some apartment structures or site improvements may actually present hazards to the health and safety of future residents of the projects, due to inadequate construction techniques or deterioration of materials.

Policy 3-17: Prior to approving conversion of rental housing to condominiums, the City shall ensure that the project has been upgraded to eliminate any health and safety hazards, meet current development standards, and reasonably demonstrate that comparable replacement rental housing exists within the Cupertino area to accommodate the displaced residents.

HOUSING AND NEIGHBORHOOD PRESERVATION

Goal C: Establish and enforce effective guidelines and regulations for the construction of safe, quality housing, and for the maintenance and upgrading of existing housing.

Cupertino's civic identity is determined to a large extent by the style and quality of its neighborhoods. The dominant development form is the detached single-family residence. Indeed, the original City fathers adopted a General Plan which balanced industrial, commercial and residential growth and strived to create and enhance identifiable single-family residential neighborhoods. The concept of preserving established single-family areas is embodied in present day planning programs. The Urban Design section of the Plan emphasizes the concept of enhancing established residential neighborhoods; by ensuring that non-residential land use types are planned in a manner which is compatible, by protecting residential areas from commute traffic, and by assuring good access to neighborhood parks, schools and private shopping facilities.

Neighborhood Maintenance

A number of incentives are offered to the community to maintain the quality of residential neighborhoods. Number one is the City's public works programs. The City expends considerable money each year to maintain public improvements: streets, sidewalks, signs, water lines, utilities, and street trees within each residential neighborhood. The purpose of the maintenance program is to protect the public investment in those facilities, and to enhance the appearance of the neighborhoods.

Policy 3-18: Continue the high quality of maintenance of public streets, right-of-way, and recreational areas.

Policy 3-19: Continue the semi-annual trash pick-up program throughout the City, and encourage its implementation in the unincorporated area within the Sphere of Influence.

Policy 3-20: Continue current code enforcement efforts within the corporate limits and encourage the County Board of Supervisors to step up code enforcement in County islands.

The City has ordinances to prohibit the keeping of garbage, and inoperative motor vehicles on private residential properties. The purpose of these programs is two-fold: first, to protect the public health from disease-carrying insects and rodents which tend to accumulate around trash, and second, to protect a neighborhood from visual degradation. The City has a Weed Abatement Ordinance which requires all property owners within the City, including residential owners, to mow weeds during the spring. This Ordinance has the dual purpose of protecting neighborhoods from fire risks and eliminating unsightly conditions within the City.

Experience has shown the City that upgrading public streets and other facilities tends to provide incentive to individuals living on that street to improve their public properties, such as parking strip landscaping.

In 1976, the City participated in an L.I.D. with a group of residents from Felton Park, a neighborhood located west of DeAnza Boulevard and southerly of McClellan Road. The subdivision street network was constructed prior to incorporation and did not conform to City standards.

As a result, the streets became severely potted and rutted, resulting in safety as well as visual problems. Reconstruction of the street, including new curbs and gutters, fostered considerable private improvements to front-yard landscaping, which generally improved the appearance of the entire neighborhood. The City will seek to enter into similar arrangements with other neighborhoods in the community, particularly as County areas annex into the City limits.

Policy 3-21: Support promotion of local neighborhood improvement districts (L.I.D.).

Policy 3-22: In upgrading residential property, a neighborhood approach should be used, allowing as much local participation as possible. The approach should be service-oriented, offering services as incentives for rehabilitation.

Housing Preservation

The majority of Cupertino's housing units were constructed after the City's incorporation in 1955. Most of the housing utilizes a ranch style design and was built under the Uniform Building Code of the time. The similar age of most subdivisions could result in a uniform deterioration of the town if the housing is not properly maintained.

Policy 3-23: Encourage citizens to continue to maintain existing residential properties in a manner which enhances the character of Cupertino.

The City utilizes the Uniform Building Code regulating construction of residential buildings to ensure the safety of its occupants and to ensure that the homes once built are properly maintained. On the other hand, the purposes of a Housing Code are to ensure that individual structures are properly maintained in order to be free of health or safety violations, illegal construction, or zoning violations.

The Housing Code could be enforced on a case-by-case basis as either complaints of bootleg construction or hazardous conditions are received, or as the City's Building Inspection Department and other code enforcement officials identify problems in the field.

Policy 3-24: Utilization of a Housing Code and a presale inspection program to ensure code compliance of existing residential structures should be considered.

The pre-sale inspection process is a means by which a house must be inspected and corrected of hazardous conditions prior to transfer of title from one owner to another. While the mandatory pre-sale inspection program would ensure that homes are properly maintained and kept in a safe condition, over the long term it may have a derogatory social effect in that it might impose a financial burden on owners of older homes.

The mandatory pre-sale inspection program should concentrate on basic health and safety items, and should be linked to rehabilitation loan programs in certain geographic programs, discussed in a later section of this Element, to offset financial burden imposed on the seller.

Housing Rehabilitation

Policy 3-25: Encourage the upgrading and rehabilitation of substandard housing within the City's Sphere of Influence.

A few of the City's neighborhoods are in small unincorporated pockets. These consist of a variety of housing types: old temporary laborers' housing and summer cottages (typified in Monta Vista), and mass-constructed simple inexpensive dwellings to house the post-World War II influx of families (evident in Garden Gate and Rancho Rinconada).

Cupertino wishes to preserve the character of its older neighborhoods, and upgrade the housing stock in the unincorporated pockets.

Policy 3-26: The City shall continue its participation in the Housing Rehabilitation Loan Program financed through the Urban County Housing and Community Development Block Grant.

The most direct incentive to rehabilitate individual houses and neighborhoods is the application of Housing and Community Development monies to a Rehabilitation Loan Program. The Rehabilitation Loan Program is applied to specifically identified "target" areas within the community where housing age and lack of maintenance of public facilities has resulted in blight. The City is working in conjunction with Santa Clara County under the Housing and Community Development Act. The staff provides technical assistance to owners to identify structurally-related problems with homes in a target area and to determine the extent of repairs needed at each particular home. Depending on the income of the homeowner, specific loan arrangements can be made to correct the deficiency. Two specific neighborhoods, Garden Gate and Monta Vista, were targeted to receive program emphasis.

Program activities in the Garden Gate neighborhood consisted of upgrading of residential structures, planting of street trees, and bulk refuse removal.

Program activity in the Monta Vista neighborhood is more comprehensive in nature. It includes rehabilitation of residential structures, bulk refuse removal, water line improvements, a traffic circulation plan, and enhancement of the commercial areas.

The HCD programs, thus far, have been moderately successful in upgrading and rehabilitating the older substandard housing stock of the community. An expansion of these activities should be made available to a greater segment of the community.

Policy 3-27: The City shall provide information on loan programs, fix-up techniques, and labor services. Periodic features in the local media should be encouraged.

Policy 3-28: Investigate and pursue Federal and State-funded programs available for expansion of rehabilitation activities.

Policy 3-29: Expand the current HCD-funded Rehabilitation Program to non-owner occupied units.

A Rental Rehabilitation Program would make rehabilitation available to all target area residents. Non-resident owners, by agreeing to limit the rent on the rehabilitated unit to an established schedule, would make two significant contributions to the community:

1. A dwelling unit in decline would be brought to existing standards, and
2. A unit would be made available to a moderate-income family if the owner of the unit chooses to rehabilitate the unit in conjunction with the Section 8 Existing Housing Program. Through adherence to a rent stabilization schedule for the term of the rehabilitation loan, rental units will be kept within the price range of families currently occupying the units.

In the case of a vacant unit, the non-resident owner may choose to make the unit available to a family eligible for rent assistance through the County Housing Authority, in exchange for a much lower interest rehabilitation loan.

The Rental Rehabilitation Program is a significant mechanism to further the goals set forth in the City's Housing Assistance Plan.

Energy Conservation

In conjunction with the City's preservation of housing stock, consideration must be given to reducing energy consumption. To comply with energy conservation regulations and the Uniform Building Code, all new construction must be designed in accordance with the State Energy Commission Regulations.

In addition to State Energy Conservation Standards, and as a pre-requisite to building permit issuance, the use of techniques that promote energy conservation and energy efficiency in building design, orientation and construction should also be considered.

State Energy Standards contribute significantly toward increased building efficiency, but additional regulation can further the "energy performance" of a building. For example, additional regulations might include requiring light colors for exterior walls and roofs, which would serve to reflect intensive solar heat away from the structure, or possibly minimizing unshaded glass on east and west exposures through tinted glass, overhangs, or landscaping.

Policy 3-30: Actively promote energy conservation techniques and energy efficiency in building design, orientation and construction.

Policy 3-31: Re-examine residential zoning ordinances to ensure that use limitations regarding mechanical apparatus do not unduly inhibit solar energy use.

With the increasing emphasis on solar radiation as a viable alternative energy source, the City must consider protecting access to the sun of prime importance to present and future solar utilization.

Energy resource management is a relatively new field where program development may occur at a rapid rate. Cupertino will be kept informed of current developments in other areas.

Policy 3-32: Investigate and pursue information regarding energy conservation programs or policies that are being implemented by other cities in California.

Cooperation of Cupertino residents is critical to home energy conservation efforts. The City will establish a Community Information Program to serve as a data resource for City residents, to promote energy conservation techniques.

To eliminate duplication of efforts and better coordinate the program, the City will utilize the informational resources of the Pacific Gas and Electric Company, which serves as Cupertino's gas and electric utility.

FAIR HOUSING PRACTICES

Goal D: Promote a community in which all people, regardless of their ethnic, racial, religious backgrounds, income, marital status, sex, age, or physical handicap, will have an equal opportunity to avail themselves of housing. Promote the equitable solution of social and technical problems concerning property owners and residents.

Housing discrimination, although decreasing over the past several years, is still occurring within the community. State and Federal law specifically prohibits discrimination in the selling of homes on the basis of race, color, sex, religion, national origin, marital status and being a recipient of public assistance. Local service organizations like Mid-Peninsula Citizens for Fair Housing and Housing Service Center have been effective in eliminating flagrant violations of the law. However, more subtle practices are difficult to detect and require more support from local governments to produce action.

Policy 3-33: The City shall support efforts of organizations which are working toward eliminating discrimination in the Cupertino housing market.

Age Discrimination

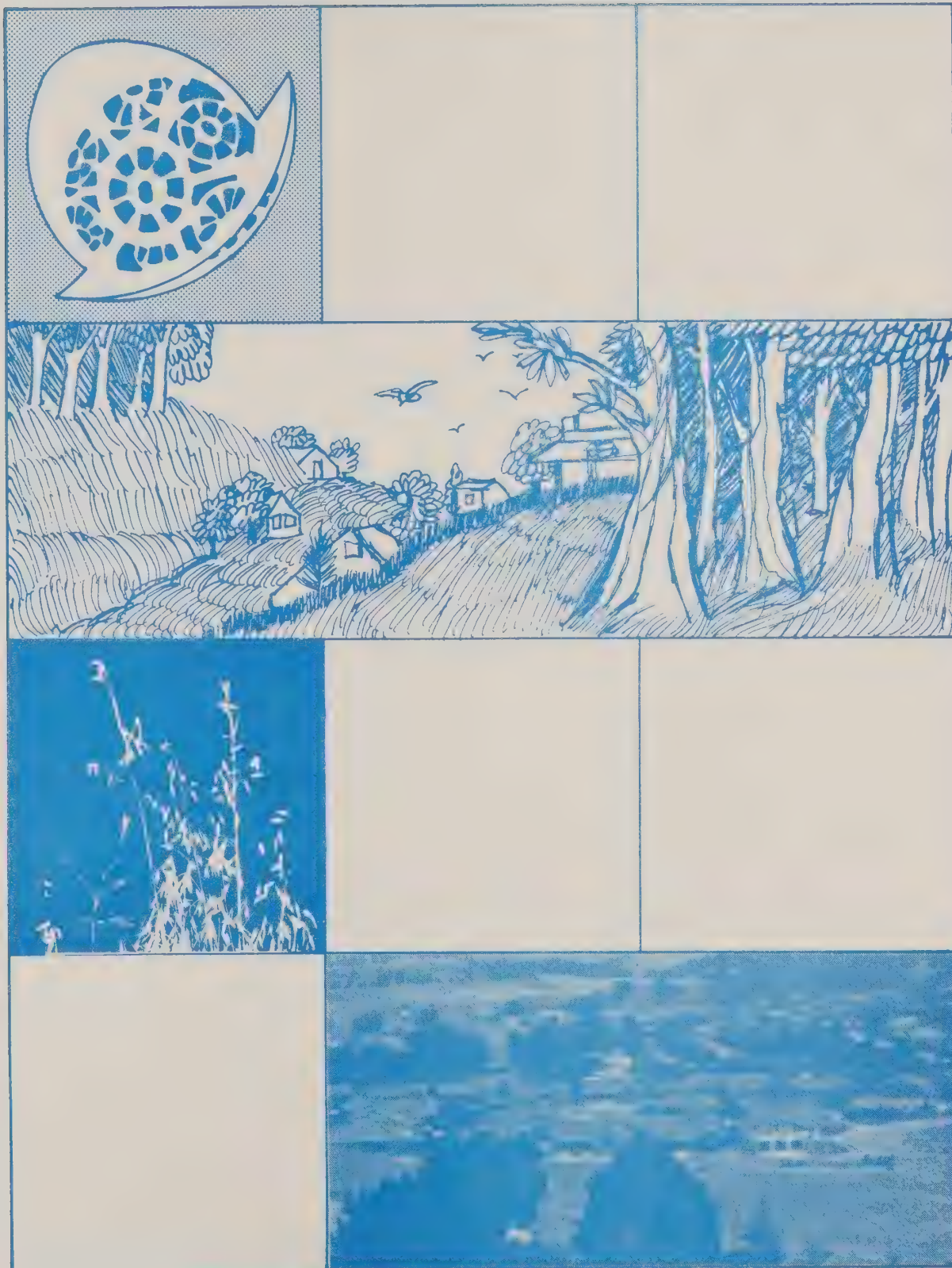
Discrimination of another kind has become increasingly more prevalent in the area, particularly in multi-family apartment complexes, and that is age discrimination. Age discrimination is most often directed against families with children, although the elderly have been victims as well.

In Cupertino there are 12 apartment complexes, 7 of which are "adults only". In the surrounding market area, defined by Fremont Avenue, Prospect Road and east to Lawrence Expressway, there were 31 apartment complexes surveyed, 77% of which discriminated against families with children by prohibiting children or limiting the age and number of children permitted.

Since age discrimination is not yet illegal in this area, the Mid-Peninsula Citizens for Fair Housing and other community groups are unable to take action to help the families who are already searching for housing within an extremely tight market and encounter such policies. The apartment vacancy rate for Cupertino in 1976, as surveyed by San Jose State University, School of Business, was only 1%. If half of the apartments are excluded from children, it makes the situation almost impossible for families.

The City recognizes that existing apartments have been designed and have been operating over the past several years with the restrictive policies that were established when the developments were built. To change the policies may involve hardships on the part of the existing residents and managers. New developments, however, should be prohibited from discrimination against an age group unless the complex is under a special permit for a particular group such as the elderly.

Policy 3-34: The City of Cupertino shall discourage age discrimination for new multi-family rental housing or conversions of multi-family housing or community housing.



4
CIRCULATION

The Circulation System has a considerable influence upon the pattern of land uses and the quality of life enjoyed by a community's residents. Communities have the responsibility to ensure that the Circulation System is attractive, efficient, and that the system does not unduly impact the local environment. The following sections set forth the goals and policies of the City of Cupertino with respect to the movement of people and goods within the community. The term "circulation" is used to describe the comprehensive network of streets, highways, bikeways, trails and pathways, and vehicle movements such as buses, car and van pools, etc.

State policies de-emphasizing new highway construction, impending fuel shortages, consistently high inflation rates, rumors of recession, a continually growing base of jobs and housing, and the pressure to reduce public spending will complicate the job of providing a well-balanced Circulation System which meets the region's needs. The uncertainty of future reliance on personal automobiles as the primary means of travel has shaped the preparation of these policies.

Cupertino must approach circulation planning with policies which are flexible and which provide for options or alternatives to the automobile. While providing flexibility, the Circulation Element must be definitive enough to guide local government transportation/circulation decisionmaking and expenditures over time.

TRAFFIC VOLUMES AND SERVICE LEVELS

Cupertino began as a suburb of the North Santa Clara County employment centers, which are located in the Cities of Mountain View, Sunnyvale, Santa Clara and Palo Alto. Cupertino has grown to incorporate a mixture of low and moderate-density housing, with diverse commercial and industrial facilities. With the exception of the significant increase in the job base in the City of Cupertino, the West Valley Cities of San Jose, Saratoga, Campbell and Los Gatos have developed primarily as suburbs, placing Cupertino along the commute path to the northerly job base. Thus, the street network has become heavily congested with increasing volumes of peak hour commute traffic.

The problem is complicated to a large degree by the lack of regional transportation facilities along the Highway 85 Corridor. Most of the West Valley communities, including Cupertino, have based their General Plan density levels upon completion of highway facilities along this right-of-way. Lack of these improvements will become increasingly critical as the population and job base continues to grow.

CIRCULATION

4-2

While most of the growth is likely to occur in the southern portion of San Jose and Santa Clara County,¹ the pressure on the existing transportation network will be considerable.

Figure 4-A displays the present (1977-1979) traffic volumes on major streets and freeways within the Cupertino area. The figures have been obtained from 1977 CalTrans estimates, the City of San Jose Public Works Department, and traffic volume studies by the City of Cupertino.

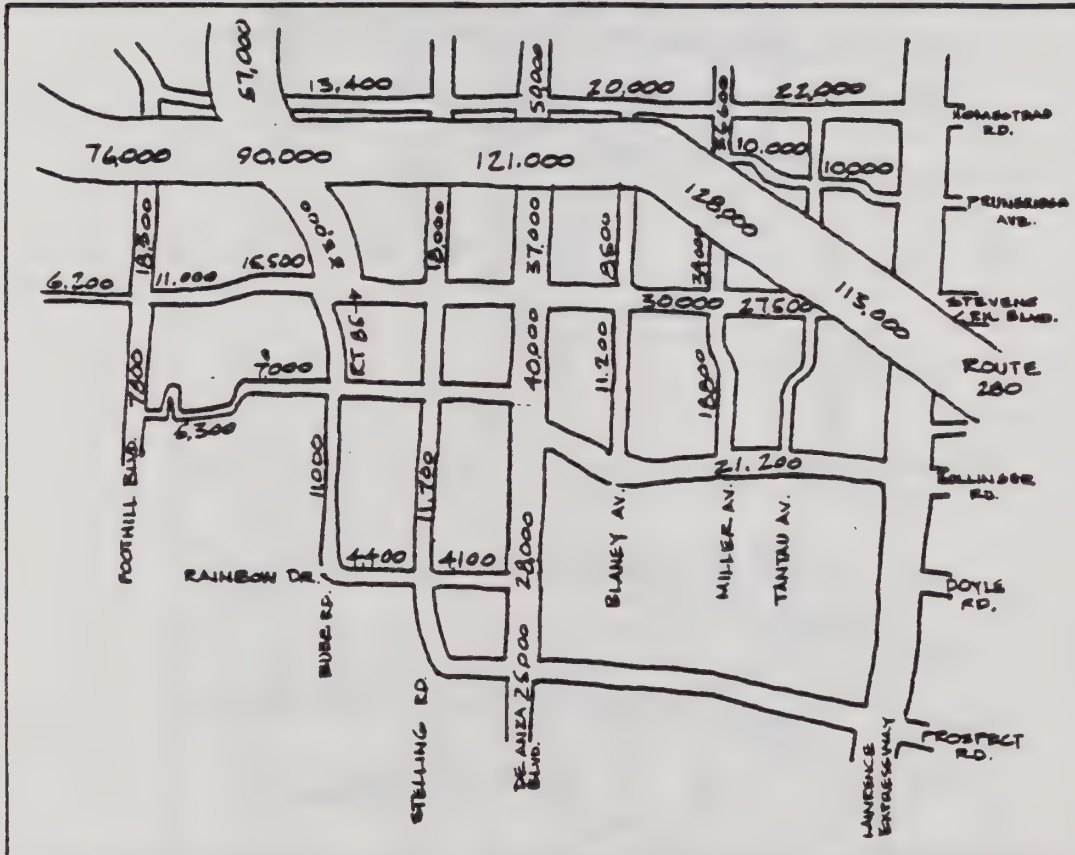


FIGURE 4-A

AVERAGE DAILY TRAFFIC COUNTS - 1977-1979 *
FREEWAYS, ** ARTERIALS, MAJOR COLLECTORS '77-'78-'79

* FIGURES REPRESENT APPROXIMATE VOLUMES COMPILED FROM TRAFFIC COUNTS BETWEEN 1977-1979

** FIGURES OBTAINED FROM CALIF. DEPT. OF TRANSPORTATION 1977
NOTE: VOLUMES MAY VARY 10,000 DURING PEAK MONTHS

CITY OF CUPERTINO COMPREHENSIVE GENERAL PLAN 1979

(1) Draft Report of the Association of Bay Area Governments "1980-2000 Population/Employment/Housing for the San Francisco Bay Area - Projections 1979".

Some of the volumes represent a significant increase over the 1971 and 1975 estimated volumes (see Figure 4-B below).

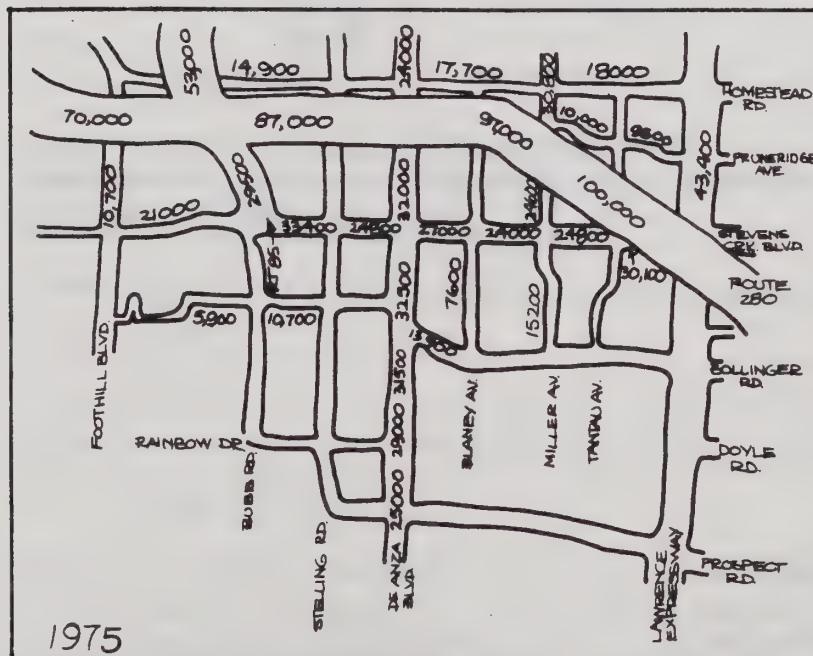
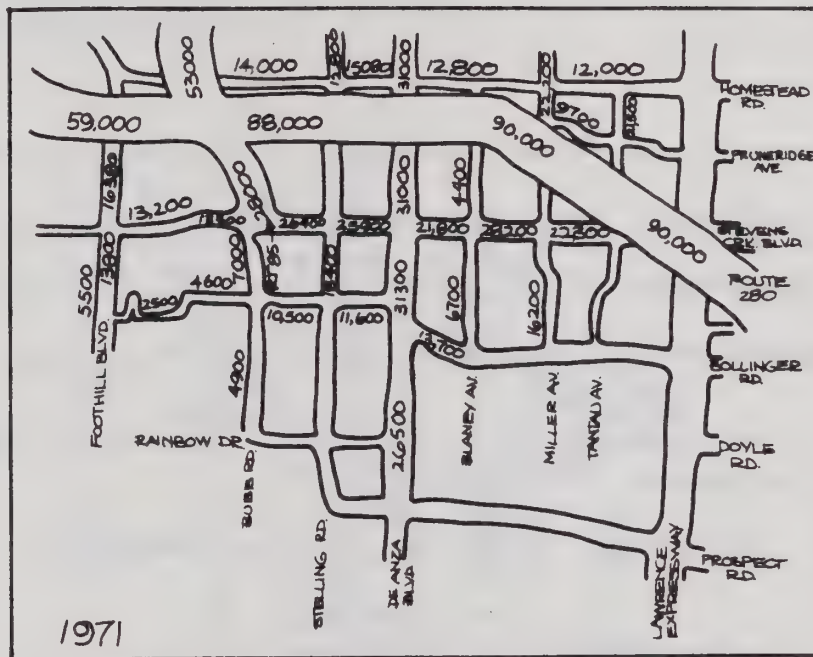


FIGURE 4-B
AVERAGE DAILY TRAFFIC VOLUMES
2 WAY - 24 HOUR COUNT
CITY of CUPERTINO • comprehensive plan



Traffic volumes by themselves do not reflect the impact of the increasing traffic levels. Figure 4-C estimates the level of service (congestion) at selected intersections in Cupertino, based upon intersection capacity analysis conducted by the Traffic Division of the City of San Jose and City of Cupertino Public Works Department.

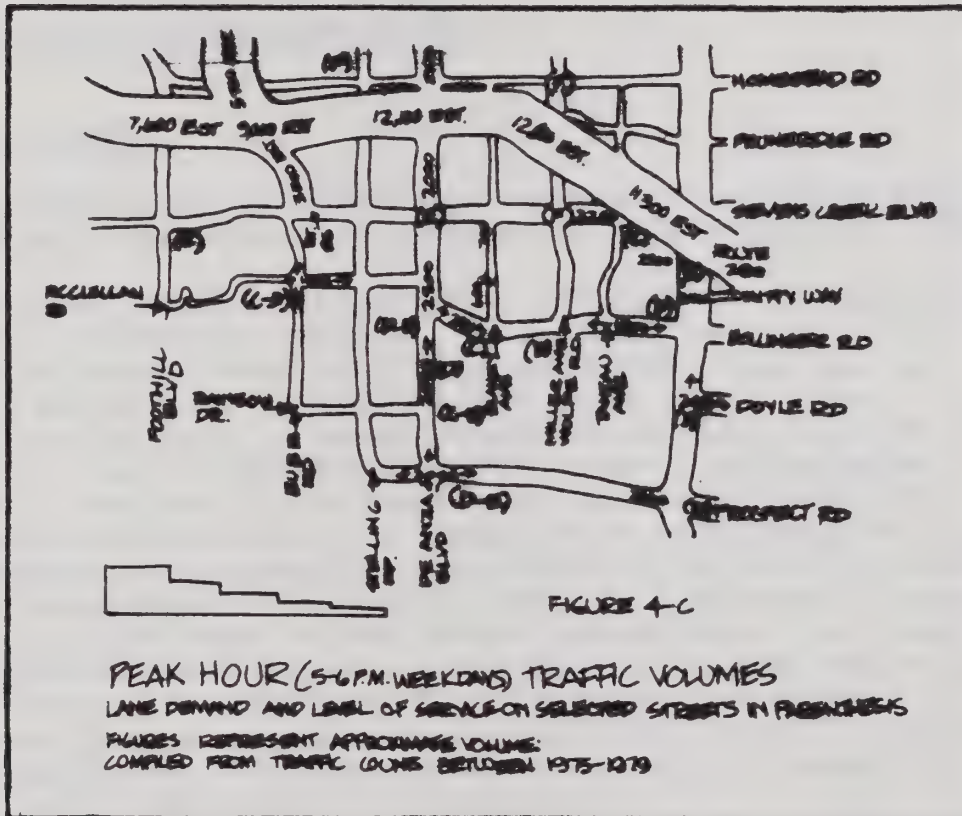


Table 4A

Traffic Service Levels

| Level of Service | Technical Definition | Short Definition |
|------------------|---|---------------------|
| A | Free Flow (Relative) | Good, no congestion |
| B | Stable Flow (Slight Delay) | Some congestion |
| C | Stable Flow (Acceptable Delay) | Congestion |
| D | Approaching Unstable Flow (Tolerable Delay) | High Congestion |
| E | Unstable Flow (High Delay) | Near breakdown |
| F | Forced Flow (Jammed) | Breakdown |

The City of Cupertino Public Works Department estimates that peak hour traffic delays at major arterial intersections (De Anza Boulevard, Foothill Boulevard, Wolfe Road, and Stevens Creek Boulevard) and major collectors (Stelling Road) approximate D and, in some cases, may equal an E level of service. It seems apparent that the increasing volumes are having a major impact on the ease of movement in the City, especially during the peak traffic hour.

PAST TRANSPORTATION PLANNING

The Core Area

Circulation planning in Cupertino attempts to respond to anticipated major development according to the long range General Plan.

Circulation planning for the City's 1973 General Plan Land Use Element attempted to establish the ultimate number of travel lanes on Stevens Creek and De Anza Boulevards, (later set at 8 total) and then to correlate the lane demand with ultimate build-out intensity of vacant properties adjoining those boulevards. Using a sophisticated traffic generation/simulation "model", developed by the State Transportation Planning Division, a numerical relationship was created which established the traffic-generating capacity of a particular use on a particular site, and expressed that traffic volume as a component of total vehicle volume demand at the evening commute hour. That numerical relationship is termed a "trip-end" and has been used by the City Council as a condition of zoning or land use approval to restrain local development and its associated traffic along De Anza and Stevens Creek Boulevards within the total commute-hour vehicle-carrying capacity of eight lanes.

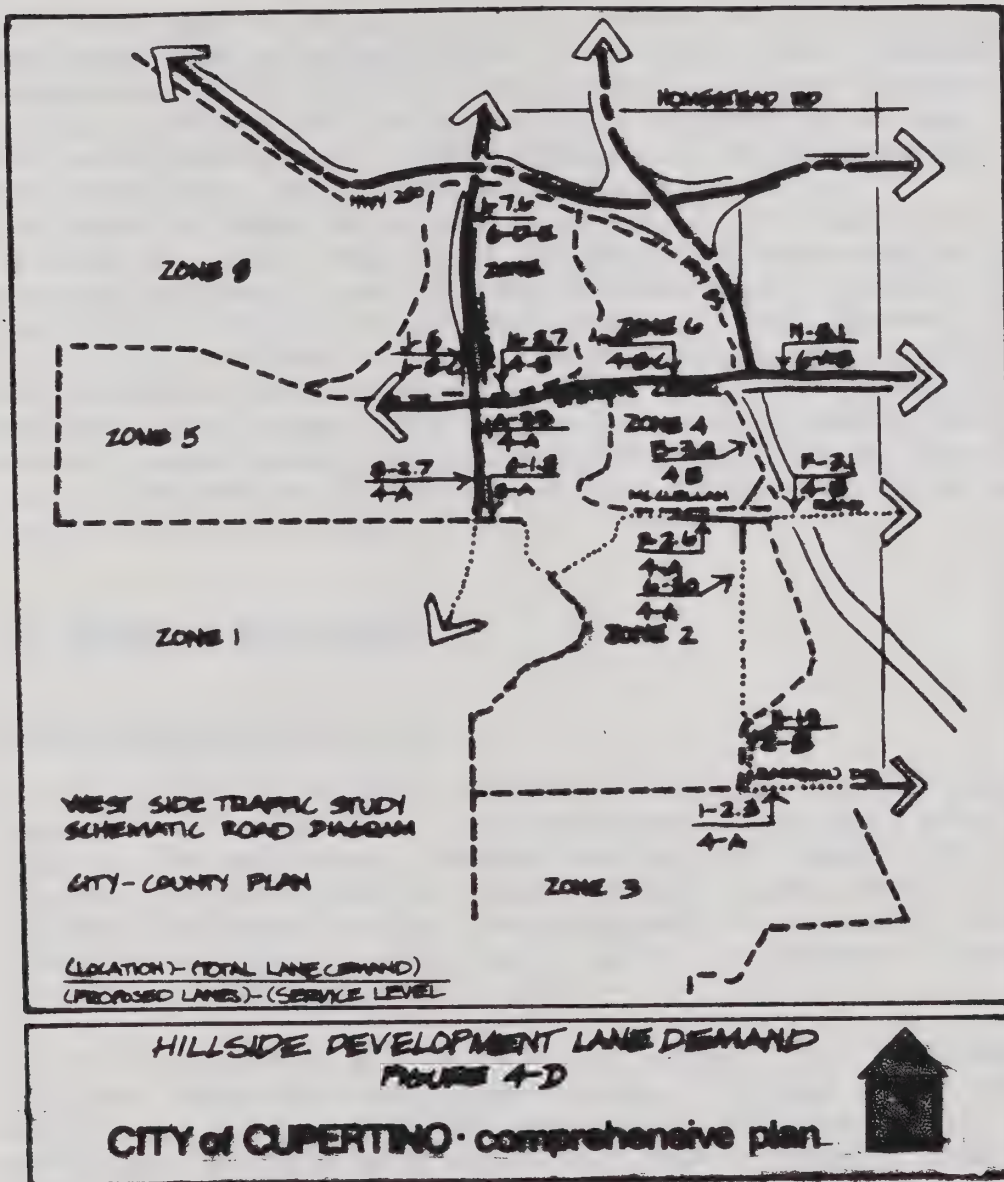
The 1975 Hillside Land Use Plan

The 1975 Hillside General Plan evaluated the impact of several plan alternatives and density levels upon the major service roads (i.e. Foothill Boulevard, Stevens Creek Boulevard, McClellan Road, Bubb Road, and Stelling Road).

The approved alternative tied dwelling unit density to the slope of the land, generally allowing more intense construction at the flatter elevations, and fewer units on steeper ground. The plan projects about 1200 dwelling units within the Urban Service Area, and about 800 more beyond the Urban Service Area expansion line. While most of the resulting lane demands could be accommodated as new development occurred along the affected service roads, it was necessary to implement a Plan Line for the portion of Stevens Creek Boulevard between Foothill Boulevard and Bubb Road.

Land Use Element
for the Core Area
Dec. 1973 (Res. #3592)

Hillside General Plan
EIR - June 1976
(Res. #4192)



Stevens Creek Boulevard Plan Line

The Stevens Creek Boulevard Plan Line, adopted in 1978, implemented the Hillside General Plan by establishing a maximum development setback to accommodate a four-lane option for Stevens Creek Boulevard between Foothill Boulevard and Bubb Road. Essentially, the "Plan Line" represents an option to implement widening of Stevens Creek Boulevard should future traffic conditions and Hillside development so warrant.

The Plan was developed amid concern that a widening of streets may tend to attract traffic from other heavily-congested roadways. Responding to this concern, City Council policy specifies that actual construction of the roadway cannot begin unless it is deemed essential, based upon future traffic analysis.

Stevens Creek Blvd.
Plan Line Study
Action Plan
Feb. 1978 (Res. #4645)

Summary of Past Planning

The above studies collectively represented the Circulation Element previously in effect in the City of Cupertino. However, reconsideration of policies and conclusions respecting future traffic conditions in the City are now necessary since some of the assumptions used in prior analyses are now questionable. Most significant among these dubious assumptions is completion of Route 85 through Cupertino, out to Highway 101 in South San Jose. This issue is regional in scope and is incredibly complex; a more complete discussion of its history and ramifications follows in the next section of this Element. Past circulation planning has evolved on the basis of restrictive constraints on local and through-traffic. It is reasonable and necessary to continue these traffic constraints pending the outcome of outside agency actions and some more definite information on the type of transportation facilities which can be expected along the 85 right-of way.

THE REGIONAL INFLUENCE

State Highway Construction

As the previous discussion indicates, Cupertino has long recognized that it cannot plan its Circulation System apart from regional considerations. Indeed, the regional impacts are the greatest problem facing the transportation system today. All of Cupertino's past transportation planning has assumed participation by the region toward completion of the Highway 85 Freeway to Highway 101 in South San Jose.

The City of San Jose has modified its General Plan to accommodate some industrial uses at the southerly portion of the community, and may have actually arrived at more restrictive urban containment policies as a result of a lack of transportation facilities along the 85 right-of-way. Nevertheless, it can still be projected that significant levels of congestion will result if no transit facilities are constructed along the 85 corridor within the foreseeable future. There are still many questions outstanding relating to the timing and type of transportation facilities which may be provided along the 85 right-of-way.

While the likelihood of complete freeway construction to Highway 101 seems slim today, the need for some transportation facilities along the 85 right-of-way is even more apparent. Cupertino streets cannot continue to absorb increased peak hour traffic volumes without accompanying increases in congestion, longer peak periods, and near-breakdown levels of service at intersections. Maintaining some reasonable level of traffic flow at all times during the day is basic to the ability of a community to provide efficient emergency response, and to reasonably protect residents

from excessive levels of pollution, noise and delay.

Cupertino traffic planning is similarly dependent upon the transportation planning of State freeways, County expressways, and neighboring City arterials. If these arterials are heavily congested or at near breakdown, traffic seeking the path of least resistance will be attracted to Cupertino streets and raise the level of congestion and service equivalent to the surrounding streets.

The Santa Clara Valley Corridor Evaluation Study has two recommendations for meeting future transportation needs in the County which are of prime importance to the City of Cupertino. Under the general topic of Freeway Improvements, the study suggests that extension of the 85 Freeway to Saratoga-Sunnyvale Road be considered and that Highway 280 be expanded to 8 lanes. Also, the study recognizes the immediate necessity of preserving the 85 right-of-way. The circulation policies affirm Cupertino's support of these findings, but with stronger emphasis on completing the improvements.

Santa Clara Valley
Corridor Evaluation
ABAG/MTC Joint
Policy Committee
March 1979

The report further recommends that "the bus system should be expanded to approximately 750 buses to provide adequate local and express service within the urban limits". With the present level of urban densities and in light of the tremendous investment in roadways in the Santa Clara Valley, buses probably represent the most cost-effective form of mass transportation. Rail forms of mass transit are very costly, in terms of acquisition of right-of-way and capital investment, with only limited effectiveness especially in a low-density suburban setting.

County Transit Services

The present bus fleet consists of approximately 300 buses serving an area of approximately 240 square miles. The Santa Clara County Transit District's Transit Development Program, fiscal years 1980-1984, projects that the fleet will be expanded to 516 buses by fiscal year 1982. Presently, the system covers about 60% of the service area population, and operates at approximately thirty-minute headways (time lapse between buses). Headways vary significantly, depending upon the function of the individual line. The 516-system is projected to reach approximately 80% of the County population and reduce headways to fifteen-minute intervals during the peak commute hours.

Transit Development
Program FY 80-84,
Santa Clara County
Transit District
February 1979

The Transit District is pursuing a broad range of goals and objectives, emphasizing environmental quality and the need to serve all of the people in the District boundary. The District is attempting to achieve a balance between the politically sensitive goal of providing reasonable service to all people and the objective of maximizing efficiency.

From an efficiency standpoint, the Corridor Study projects that "transit could carry up to 12% of the work trips during peak travel periods" (Santa Clara Valley Corridor Evaluation Summary, Page 6). Cupertino has a special interest in seeing that

the bus system is effective in reducing personal automobile commute trips on the arterial streets and freeways. The policy section of this Element suggests that Cupertino support regional approaches to meeting transportation needs of County residents. Cupertino must also strongly emphasize the need to meet the commute trip demand. The Corridor Evaluation Study seems to support the commute emphasis, as reflected in the following comment:

"..Expansion beyond the basic 500-bus system should emphasize express service to downtown San Jose, express service from residential terminals to jobs in the industrial parks, and feeder to the Southern Pacific and regional bus connections with BART."

Santa Clara Valley Corridor Evaluation Summary,
adopted by ABAG and MTC Joint Policy Committee,
March, 1979, Page 18.

Cupertino should encourage the Transit District to evaluate in quantitative terms the relative effectiveness of transit operations on reducing arterial street volumes and congestion levels.

Figure 4-E reflects the existing bus routes which serve or are planned in the Cupertino area. The bus lines reflected in Figure 4-E will be changed frequently to respond to demand. However, it is expected that the Vallco Regional Shopping Center will continue to serve as a major transfer station for the West Valley. The transfer station facilities in Vallco Park are anticipated to be constructed during the 1979-1980 fiscal year.



FIGURE 4-E

EXISTING & PLANNED BUS LINES



Balancing Jobs and Housing

Oftentimes, the best solution to a major problem is to address the root causes which have created the problem itself. The region, under the auspices of ABAG, encouraged communities to evaluate their land use policies to more closely align the number of jobs offered in the community with the number of resident workers in that community. The regional agencies encourage communities to seek a "jobs/housing balance" to counter some of the market pressures which force up housing prices in job-rich communities, and to reduce long commutes from outlying suburban areas.

At build-out of the General Plan, Cupertino will have an estimated jobs and housing imbalance of approximately 1.15 jobs per resident worker. The implication of this ratio is that Cupertino will need to construct an additional 3,000 homes to achieve a one-to-one jobs/housing balance. Given foreseeable market constraints, limited availability of land, and the economic forces which have resulted in the present imbalance, it is not reasonable to expect Cupertino, nor any other community in the County, to achieve a perfect balance. However, communities should make a reasonable effort to increase residential densities, where practical, and limit creation of new jobs in severe imbalance situations. Cupertino has responded affirmatively to the problem by increasing permissible Core Area housing densities, and by limiting industrial and commercial expansion within the Core Area.

Additionally, Cupertino has adopted the Below-Market Rate Housing Program, which is aimed at ensuring that a portion of all new medium-density housing developments are available at a range of housing prices to accommodate a variety of income categories. Cupertino's program prioritizes those moderate-income families in which the primary wage earner is employed within the Cupertino area. The program has a secondary benefit of off-setting the natural economic tendencies which locate higher-income families near the job base and force moderate-income families to seek housing far from the employment source. Several other Santa Clara County communities have implemented or are considering below-market rate programs, which increases the potential for a successful impact.

Cupertino should continue to encourage other communities within the Santa Clara Valley to respond to the need to provide a closer jobs/housing balance, and incorporate programs aimed at providing a range of housing prices.

Housing
pages 3-22, 3-23
Policies 3-8, 3-9

DESCRIPTION AND FUNCTION OF THE CITY'S CIRCULATION NETWORK

Motorized Vehicular Network

The Vehicular Circulation network presently serving the City of Cupertino consists of approximately 100 miles of streets, expressways, and freeways. The following table lists the specific streets by category and length:

Table 4-B

| Cupertino Vehicle Circulation Network | |
|--|------------------------|
| <u>Street Type</u> | <u>Length in Miles</u> |
| State Freeways | 6 miles |
| Highway 280 | |
| Highway 85 | |
| State Highways | 2 miles |
| De Anza Boulevard/Saratoga-Sunnyvale Rd. | |
| Arterials | 11 miles |
| Foothill Boulevard | |
| Stevens Creek Boulevard | |
| Bollinger Road | |
| Wolfe Road/Miller Avenue | |
| Homestead Road | |
| Collectors | 15 miles |
| McClellan Road | |
| Stelling Road | |
| Blaney Avenue | |
| Tantau Avenue | |
| Rainbow Drive | |
| Bubb Road | |
| Local Streets | 68 miles |
| TOTAL | 102 miles |

Streets are typically designed and planned to serve a specific function. The following table describes the general definition and purpose of the above categories of streets.

Function of Streets

Freeways

A divided arterial highway with full control of access and with grade separations at intersections. The primary function of a freeway is to accommodate through vehicular travel uninterrupted by grade crossings.

Expressway

A divided arterial highway with full or partial control of access and generally with grade separations at major intersections. The function of an expressway is to provide through-access to freeways, major arterials, or activity areas.

Arterial

A highway primarily serving through-traffic usually on a continuous route with limited access to adjacent properties. The primary function of an arterial is to provide access through an area or to or from collector streets, freeways, expressways, in an expeditious manner. Arterials usually accommodate significant community facilities such as commercial, industrial, public and quasi-public uses. Disruption of traffic flow by adjacent properties is discouraged as delays are typically not tolerated.

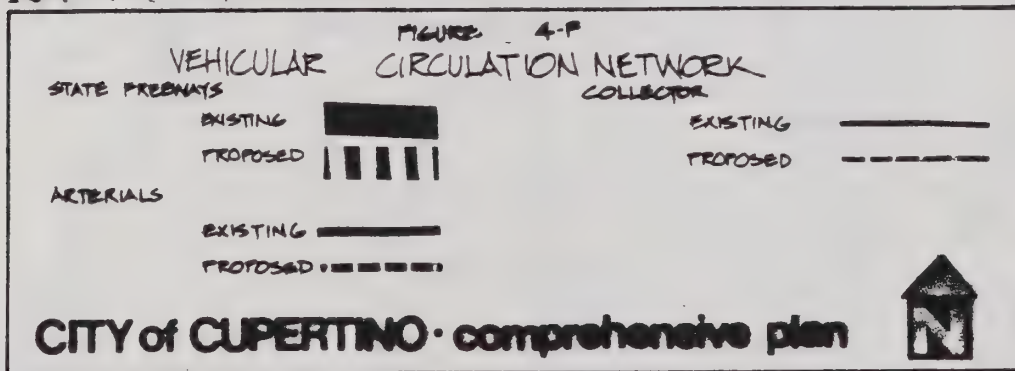
Collector Streets

Usually a 2-4 lane roadway which functions to provide access from local residential streets to arterials, expressways, freeways, or between activity centers. Usually, direct access to adjacent properties is allowed as slower speeds and greater delays are typically tolerated.

Local Streets

Usually a two-lane roadway which principally functions to provide access to the properties (usually residential) which abut the street. It is not intended to carry through-traffic except on selected local streets which serve the dual function as a sub-collector or connector. Local streets provide the network by which service vehicles such as postal services, school buses, moving vans, etc. and emergency vehicles such as fire, police, and ambulances attain access to residential districts.

Figure 4-F displays the vehicular circulation network presently serving the City of Cupertino.



Note 1: The final delineation of the street network in the McClellan, Santa Paula and Mira Vista area will be decided in context of specific hearings following adoption of this plan. The policies of the Circulation Element will be of prime importance in considering the role and function of streets in this area.

Note 2: Mary Avenue overpass represents a long-term improvement which will have to be evaluated for its effect on the adjacent neighborhoods, traffic volumes on Stelling Road, and relative improvement of access to De Anza College.

Note 3: Bollinger Road extension should be evaluated to determine the amount of relief it will bring to McClellan Road. The roadways specific alignments will be evaluated to minimize severing of parcels and retention of the most logical parcel size.

BIKEWAYS/TRAILS AND PATHWAYS

Specially marked bikeways in the City are displayed on Figure 4-G. All City roads not designated as freeways are legally and routinely used by bicyclists. Cyclists generally find little difficulty sharing Cupertino's upgraded roads with motorized vehicles since adequate outside lane widths are provided. Short stretches of unimproved outside lanes, such as presently exist on Stevens Creek Boulevard, McClellan Road, and Stelling Road, can require cyclists to share the vehicle travel lane. The City is searching for funding sources to eliminate these problem spots.

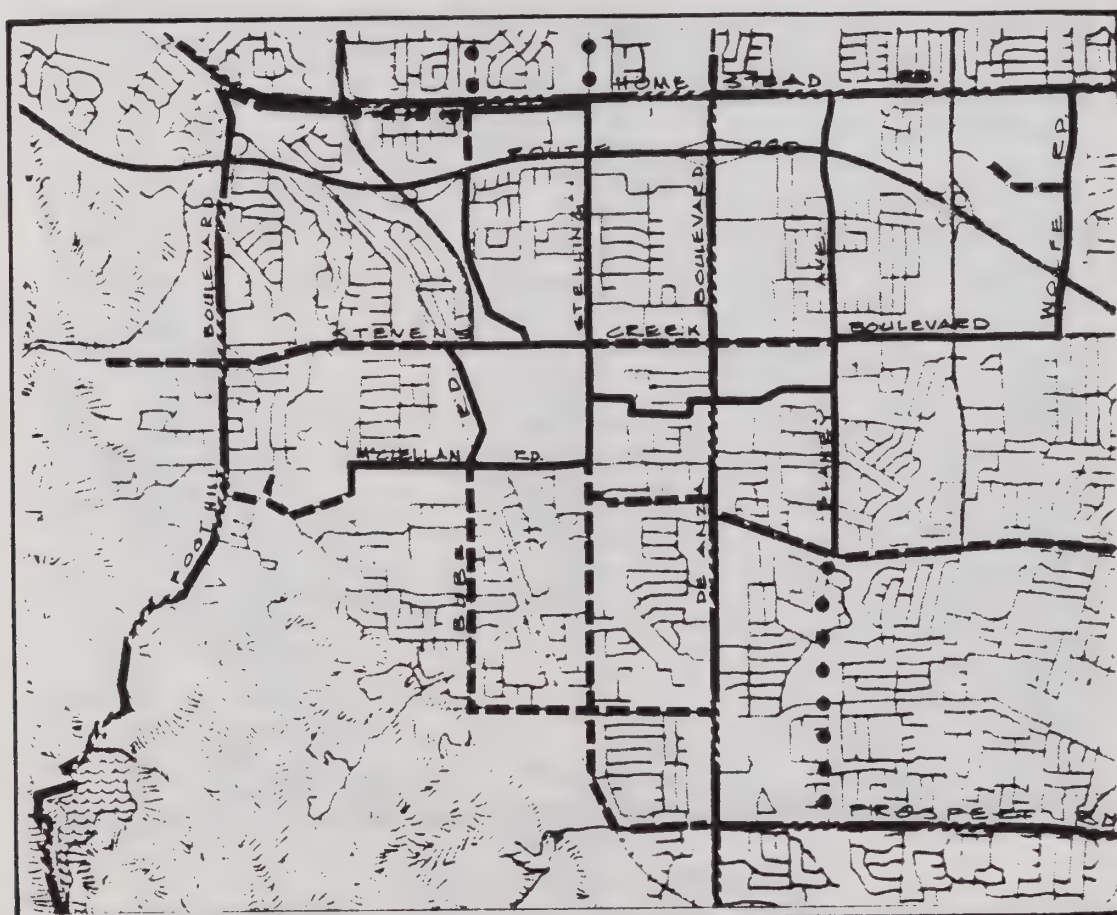


FIGURE 4-G
BIKE LANES

————— EXISTING LANES - - - - - PROPOSED COUNTY TRUNK ROUTES
- - - - - PROPOSED LANES OTHER CITY ROUTES

CITY of CUPERTINO · comprehensive plan



Pedestrian walkways, trails, and pathways are provided throughout the urbanized area and in some portion of the hillside area surrounding Cupertino. Also, Cupertino has participated in a program to increase mobility of the handicapped through the

placement of ramps at intersections to aid access to the sidewalk system. The trails and pathway plan of the Inter-City Council is modified to reflect changes by our Planning Commission and City Council (see Figure 4-H).

The trails and pathways network is intended to provide access through the City of Cupertino, Los Altos, and Mountain View to the San Francisco Bay. Additionally, the trails and pathways plan provides access into and through Cupertino's foothills in conjunction with the open space lands owned by the Mid-Peninsula Regional Open Space District and the County of Santa Clara.



FIGURE 4-H
TRAILS AND PATHWAYS
NAME

| TRAIL NUMBER | NAME |
|-----------------------------|--|
| 5,6,7,8,9,10,11,12,13,14,15 | STEVENS CREEK PARK CHAIN |
| 23,24,25 | SARATOGA - SANTOMAS AQUINO CREEK TRAIL CREEK TRAIL |
| 383 | WEST VALLEY TRANSPORTATION CORRIDOR |
| 43,43a,44,45,46,47,48 | ELISHA STEPHENS TRAIL |
| 49 | PERMANENTE CREEK |
| 50 | OLD ORCHARD TRAIL |
| C1 | RANCHO SAN ANTONIO PARK |



CIRCULATION ISSUES AND POLICIES

Circulation Goal: Promote a balanced Circulation System which is integrated with the regional system, which offers flexibility for the future by accommodating a variety of forms of transportation, and which minimizes negative environmental and social impacts on the community.

The multi-faceted single goal emphasizes the need for a policy framework which simultaneously strives to achieve all of the objectives stated in the goal. Compromising any one of the objectives may severely compromise the quality of life and future function of the circulation network. The following sections will concentrate upon major policy areas which will continue to confront Cupertino in the 1980's.

COMMUTE TRAFFIC

Regional Participation

Policy 4-1: The City of Cupertino should actively participate in the development of regional approaches toward meeting the transportation needs of residents within the Santa Clara Valley.

STRATEGY

1. Advocate priority improvement of the Highway 85 corridor to Saratoga-Sunnyvale Road or Prospect Road, as determined to be the most advantageous, and retention of options for transportation improvements and implementation of multi-modal facilities along the remainder of the Highway 85 corridor.
2. Support expansion of the County Transit District bus fleet to 750 vehicles, and prioritizing express services aimed at meeting commuter needs.

Cupertino has gone on record supporting immediate improvements along the Highway 85 corridor. The local street system cannot continue to accommodate regionwide demands without unacceptable levels of delay, congestion, noise, and air pollution. Cupertino has done everything within reason to accommodate through-commuters on Stevens Creek Boulevard and De Anza Boulevard.

Both streets are planned for eight lanes, signal interconnect systems, and have restrictive development constraints which limit the intensity of new development to control the level of traffic generation in the area. The City does not intend to widen its roads to any greater capacity, or further constrain local development to accommodate through-commuters, and must look to the region to address the long-term needs of West Valley residents.

Cupertino supports the conclusions of the Santa Clara Valley Corridor Study, which recommends expansion of Highway 280 to eight lanes, preserving the 85 right-of-way, and improving the Highway 85 right-of-way to the southeasterly end of the community.

Cupertino supports a multi-modal approach, utilizing some vehicular lanes in combination with bike paths, preferential vehicle lanes, and future transit facilities as the most likely and desirable alternative for affected communities.

Cupertino has consistently advocated short-term extension of improvements along the Highway 85 corridor. The State should consider whether Saratoga-Sunnyvale Road or Prospect Road is the most logical termination point in terms of minimizing conflicting turning movements and impacts on adjoining roadways, and in terms of best serving the needs of motorists.

The extension of improvements along the West Valley Transportation Corridor will absorb much of the peak hour congestion levels presently impacting Cupertino's arterials and collector streets. Extension of this roadway is not expected to result in any additional congestion which is not already being experienced by the surrounding communities, and it is expected to significantly relieve Cupertino's congestion. Complete system improvements are also deemed to be essential to ensure that Cupertino and the immediate vicinity is not continually impacted as Countywide levels increase.

If it becomes apparent that short-term improvements along the 85 right-of-way will be prolonged indefinitely, or not installed at all, Cupertino will have to reassess the General Plan and its policies with respect to accommodating through and commute traffic. Cupertino may have to undertake a very defensive posture with respect to through-commuters and cease any additional local commitment to moving through-commuters over local streets.

CONSTRAINTS ON LOCAL GENERATION OF TRAFFIC

Policy 4-2: The City will strive to maintain a reasonable level of traffic movement, especially during the peak traffic hour, by imposing reasonable limits on Core Area land use to ensure that principal thoroughfares are not unduly impacted by locally generated traffic during the peak traffic hour.

STRATEGY

Limit right-of-way capacity for De Anza and Stevens Creek Boulevards to a maximum of eight lanes, through the implementation of the 16 trip-ends per acre constraint on development in the Core Area.

As we have seen in the discussion of past transportation planning, the City of Cupertino has gone beyond the mere system improvements and attempted to modify some of the root causes of traffic congestion. In addition to supportive concepts addressed under the jobs and housing imbalance issue, Cupertino has constrained local Core Area commercial and industrial generation of traffic to fit within a projected lane demand by lowering the building/land ratio. Further, the City has constrained traffic-generating activity timing at Vallco Park, and has restricted development capability in the Hillside Planning Area. These actions have been viewed as consistent with the public interest in providing reasonable commute-hour traffic movement through the community.

Traffic Intensity
Performance Standard
Policy Manual
July 1977

Construction Phasing
Memo for Vallco Park
July 15, 1974
page 2-40
Community Character
Section

STREET NETWORK DESIGN AND EFFICIENCY

Street Network Improvement

The Cupertino street network is close to completion with only a few relatively minor but often costly improvements. Thus, the City must be careful to prioritize only those improvements which will not compromise the overall circulation goal, and which will achieve the greatest degree of improvement for the money. The Circulation Element must function to set direction for the remaining improvements to guide future Five-Year Capital Improvement programming.

Appendix item B generally reflects the system improvements needed to complete the vehicular circulation network. The development-triggered improvements are deemed necessary to accommodate additional or planned build-out under the General Plan.

Policy 4-3: The City should strive to complete and maintain an efficient and attractive local circulation network.

STRATEGY

1. Include bikeways on all streets designated on the planned bikeway network on Figure 4-G.
2. Include roadway system improvements which enhance the visual quality of the urban environment, incorporating medians, landscaping, etc. where deemed desirable.

3. Continue high level of maintenance on streets and public rights-of-way.

Policy 4-4: To ensure that major developments anticipated under the General Plan do not severely compromise the level of service on local streets, the City will require a traffic evaluation at the time of filing of the final development plans for any major developments.

Due to the lack of adequate regional transportation systems, development anticipated under Cupertino's General Plan may place a slightly additional burden upon local streets and add to congestion levels. Although these impacts are expected to be relatively minor, they should be evaluated to determine if these developments should participate in major off-site improvements to ease the flow on the adjoining local streets, and to determine the appropriate internal circulation systems.

Arterial Street Access Limitations

Under the preceding section dealing with the function of the City's transportation system, arterial streets were defined as major through-carriers on which direct access to adjacent properties should be limited. Limited access ensures a minimum degree of disruption of the traffic flow on the major arterial. The above approach oftentimes requires implementation of reciprocal private driveway easements to adequately serve all property owners. Cupertino implemented this concept in the context of the North De Anza Boulevard Conceptual Plan, and along Stevens Creek Boulevard and Wolfe Road to varying degrees.

Policy 4-5: Direct access from adjoining properties to major arterial streets will be discouraged. Access shall be provided through the interconnection of private driveway networks to connecting side streets or other major entrance points, unless considered unsafe or impractical due to the established development pattern.

Street Standards

Streets in the Valley Floor section of Cupertino have traditionally been developed to a right-of-way width of 60 ft. and curb-to-curb dimension of 40 ft. Smaller cars, and higher street maintenance costs, have encouraged use of narrower street widths in some locations. For instance, the City has permitted a 30 ft. curb-to-curb cross-section on many cul-de-sac streets in more recently developed subdivisions. Also, in the Plan Line Study for Stevens Creek Boulevard it allows street right-of-way widths

North De Anza Blvd.
Conceptual Plan
February 1976.
CC page 2-38
Land Use/Community
Character
page 2-11
Policy 2-8

of 50 ft. (corresponding to a 30 ft. street section) for many of the minor local streets in the "Old Monta Vista" area, to retain the character of the area and avoid unnecessary maintenance costs. Cupertino expects that the trend toward smaller cars, need to reduce maintenance costs, and the high cost of major street widenings in existing neighborhoods, will continue to encourage narrower streets in the future.

Policy 4-6: The City of Cupertino will strive to limit street pavement widths within the circulation network, subject to engineering and capacity constraints.

STRATEGY

Generally, street improvements in existing neighborhoods will reflect the street width of the existing streets. New subdivisions will generally be improved to the following standards:

Table 4-C

| <u>Urban Street Standards</u> | | |
|--|---------------------------|-------------------------|
| <u>Street Type</u> | <u>Right-of-Way Width</u> | <u>Pavement Section</u> |
| Local through-streets | 56 ft. | 36 ft. |
| Cul-de-sacs and selected local streets | 50 ft. | 30 ft. |
| Collector | | |
| 2-lane | 60 ft. | 40 ft. |
| 4-lane | 84 ft. | 64 ft. |

The hillsides represent a unique natural environment which provides a visual backdrop to the community and a tremendous resource for the future enjoyment of Cupertino residents. Subdivision planning must be carefully reviewed to ensure that the street designs adequately serve the fire protection needs and accessibility needs to the hillsides without severely compromising its function as an environmental resource.

Policy 4-7: Hillside subdivisions shall be closely reviewed to ensure that the street network conforms with the design standards of the Hillside Subdivision Ordinance and represents minimal disruption of the natural environment.

Table 4-D

HILLSIDE STREET STANDARDS

(From Hillside Subdivision Ordinance)*

| Street Type | Right-of-Way Width | Pavement Section | Notes | |
|---|-----------------------|---------------------|------------------------------|---|
| <u>Urban Fringe Areas</u> ¹ | | | | |
| Hillside Collectors | 50 ft. | 30 ft. | 3 ft. shoulder each side. | |
| Major Roadways (greater than 10 dwelling units) | 40 ft. | 24 ft. | " | " |
| Minor Roadways (less than 10 dwelling units) | 30 ft. | 20 ft. | " | " |
| Private Driveways 5 or fewer dwelling units | N.A. | 18 ft. | " | " |
| 1 dwelling unit | N.A. | 12 ft. | " | " |
| ² | | | | |
| <u>Semi-Rural Areas</u> | | | | |
| Major Roadways (greater than 10 dwelling units) | 50 ft. | 24 ft. | | |
| Minor Roadways and Cul-de-Sacs (less than 10 dwelling units) | 40 ft. | 20 ft. | | |
| Private Roads 5 or fewer dwelling units | N.A. | 18 ft. | | |
| Driveways serving individual dwelling units | N.A. | 12 ft. | turn-outs as required | |

* Consult the Hillside Subdivision Ordinance for details regarding other improvement requirements and standards.

1. Urban Fringe Areas: A development area with lots averaging less than 2.5 acres.
2. Semi-Rural Areas: A development area with lots averaging 2.5 acres or greater.

ACCOMMODATING ALTERNATIVES TO THE AUTOMOBILE

Alternatives to the automobile work toward increasing the system efficiency. However, these techniques go beyond simple efficiency toward recognizing basic changes in lifestyle which are being impressed upon the community due to the shortage of fuel and increasing levels of congestion. Cupertino should encourage alternatives to the automobile to offset these constraints and offer options toward improving the quality of life for those people willing to take advantage of alternate modes. Bike lanes must be safe, and conveniently located. Buses must be frequent, have access to preferential lanes, where feasible, etc. These modes of travel require that communities rethink their priorities and de-emphasize the dollar commitment toward accommodating the personal low-occupancy vehicle.

Policy 4-8: The City should promote a general decrease of reliance upon use of personal automobiles by accommodating and encouraging attractive alternatives.

STRATEGY

1. Encourage the use of alternate transportation modes such as bicycles, motor bikes, buses, van and car pooling, and other techniques which increase vehicle-occupancy levels.
2. Provide space on the appropriate streets to accommodate bus turnouts, safe and conveniently accessible bike lanes and pedestrian paths.
3. Require on-site bicycle parking facilities in industrial and commercial developments.

Policy 4-9: The City should continue to plan and provide for a comprehensive system of trails and pathways consistent with the regionally planned system.

STRATEGY

Seek innovative techniques to finance purchase of right-of-way and trail improvements.

Bus turn-outs/
Shelters
page 2-12
Policy 2-9
Strategy 2

Bicycle Facilities
pages 2-12, 2-13
Policy 2-10
Strategy 3

MITIGATE NEGATIVE ENVIRONMENTAL AND SOCIAL IMPACTS OF CIRCULATION SYSTEM

The quality of life on local neighborhood streets have been severely impacted due to the present level of over-dependence upon the private automobile. Local residential streets have been subject to abuse from errant drivers and commute-traffic. Quiet and safe streets are the keystone of neighborhood quality of life. Residents who feel that their neighborhood is threatened by commute-traffic or abusive drivers should be assisted by the City administration to attempt to mitigate such impacts where practical and feasible.

Policy 4-10: The City should strive to protect the community from noise, fumes, and hazards generated by the City's transportation network.

Policy 4-11: The City will strive to protect streets, which are not designed as major streets (as delineated on Figure 6), from intrusion of commute-traffic whenever practical and feasible through neighborhood traffic management programs.

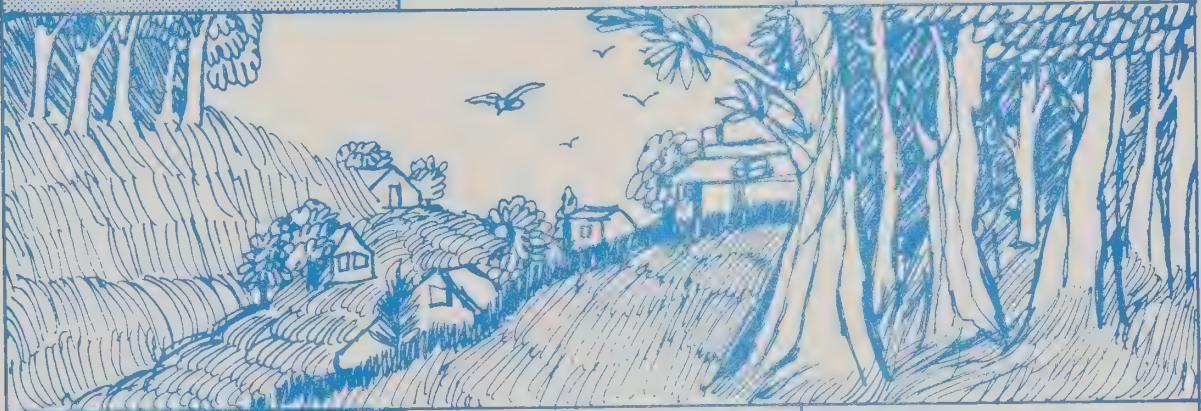
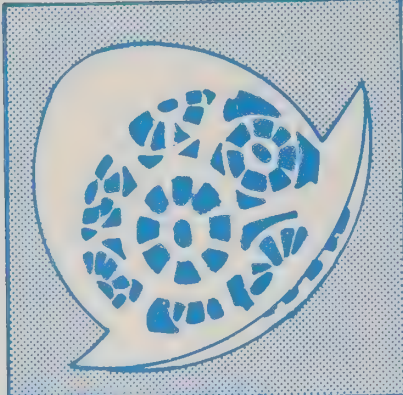
Policy 4-12: Cupertino will continue to study and implement techniques which discourage abusive driving on local neighborhood streets, including intensified speed enforcement efforts, enforcement of State vehicle muffler laws, and review of traffic management strategies.

Noise
page 6-43
Policy 6-18
6-19

Community Character
page 2-16
Policy 2-16
page 2-23
Policy 2-25

Residential Neighborhoods
page 2-17
Goal C

Noise
page 6-43
Policy 6-18
6-19



5

ENVIRONMENTAL RESOURCES

Introduction

Until recently, public attitude toward land was influenced to an overwhelming degree by economic considerations alone. Land was viewed as a commodity to be traded or built upon toward the end of maximum private profit with little regard for associated public costs or potential harm to the environment. The fallacies inherent in this viewpoint are becoming apparent to many citizens and public officials. Unchecked growth and physical expansion create scarcity of urban lands, congest streets, inconvenience daily travel, degrade air and water quality, and intensify taxation burdens necessary to support hazardous, inefficient public service boundaries.

As people become more conscious of the relationship between quality of life and their community setting, decisionmakers are demanding more sophisticated tools to assist their efforts in shaping physical form. The comprehensive plan is one of those vital tools used extensively in the City of Cupertino for day to day judgments on matters of public policy dealing with stewardship of the land.

Open Space Planning

The popular concept of an "Open Space" plan is its recreational land use emphasis; mainly, acquisition and development of public parks within a particular jurisdiction's boundaries. Actually, the Open Space Element is concerned with many things other than formally developed parks. Protecting water sheds and reservoirs, providing for viable agricultural activities in or adjacent to urban areas and creating opportunity for privately owned recreational sites are some of the policy considerations to be studied in the Open Space Element.

Conservation Planning

The term "conservation" calls to mind responsible human coexistence with plant and animal wildlife. The scope of concern is really far greater, though, as the Conservation Element should consider policies for responsible extraction of mineral resources, and the preservation of ground water recharge areas.

The Conservation Element also takes on added importance under provisions of the California Environmental Quality Act. This requires a comprehensive review of any development which might adversely influence the environment. The Cupertino General Plan is designed to incorporate much of the analytical content and mitigation policies required under CEQA, thus eliminating the need for project-by-project environmental impact reports in many cases. In judging the impact of a proposed development on the community, however, and in creating developed forms which fit the physical sensitivities of its surroundings, CEQA suggests use of the Conservation Element of the General Plan as a reference document.

Calif. Environmental
Quality Act

Conservation and Management of Resources

Human beings depend on natural and man-made resources for survival. In making use of such resources, however, people are responsible not to deplete them, or render them unfit to be shared by other forms of life. The task of conservation is, therefore, a creative opportunity to appropriate wisely those resources demanded by present needs and to assure the continued availability of those resources for the needs of future generations. Material discussed in this section of the Element inventories key resources found in the Cupertino Sphere of Influence and describes a policy approach for their use and preservation.

AGRICULTURAL LANDS

The trend toward urbanization of agricultural land has accelerated in recent years. In 1970, agricultural uses occupied about 23% of the City's Urban Service Area; by 1977 that figure slipped to only 8%. Ironically, the City of Cupertino like other Santa Clara County communities has one of the most favorable growing climates in California. Yet, agricultural activities here cannot compete with other areas within the State because of higher labor and water costs and diminished production efficiency. Figure 5-A depicts the approximate extent of a prime agricultural Class 1 and 2 soils. Even the floriculture industry, which until recently has had much success, is suffering declines because of competition primarily from Latin American countries.

The City of Cupertino currently has signed Williamson Act Contracts with two owners within the valley floor and a property owner owning land within the foothills. The locations of the agricultural preserves are shown on Figure 5-A. The Williamson Act properties will continue to experience economic pressure for intensive development and will probably not remain in cultivation for the long term. It is fair to conclude that while the Williamson Act procedure has preserved some urban open space, and has offered the City some flexibility in regulating future uses on these sites, the law has had little effect in preserving prime growing lands within the City of Cupertino.

California Land
Conservation Act
(Williamson Act)

Policy 5-1: Properties within the Urban Service Area of the City placed under Williamson Act contracts should also be designated on the General Plan Land Use Element for their anticipated "higher market" use in order to plan for future public service and utility infrastructure demands and to ensure future development patterns consistent with established community character.

Policy 5-2: Public land use and urban development review processes should recognize and support the aesthetic and educational value of agricultural activities within the City.



AGRICULTURAL USES

FIGURE 5-A

- 9 GREENHOUSE
- W LANDS UNDER WILLIAMSON ACT CONTRACT
- PRESENT AGRICULTURAL USE
- GENERALIZED EXTENT OF CLASS 1 & 2 SOILS
- URBAN SERVICE AREA BOUNDARY



Strategy

1. The City-operated demonstration farm/orchard through the Recreation Department Naturalist Program shall continue to serve as a field resource for schools and youth service organizations.
2. Designate portions of "rural" urban parks such as McClellan Ranch for community vegetable gardens and provide training courses in horticulture through the Recreation Department's Leisure Activity Training Program.

Policy 5-3: Agriculture or grazing should be encouraged in the hillsides as a means of preserving open space. However, grazing activities should be monitored fully by appropriate public agencies to prevent potential erosion.

AIR QUALITY POLICIES

Although air is one of the most basic and vital natural resources, it is often treated as a dumping ground for the wastes of industrial, travel and recreation activities. Some foreign matter in the air supply is essential to sustain life as we know it. For example, without airborne dust particles around which to collect and form droplets, atmospheric moisture cannot fall to the earth as rain. For the most part, however, the air envelope which surrounds our valley is often rife with substances which reduce visibility and which can be dangerous to human health. This section of the Environmental Resources Element describes the most common air pollutants and their sources and outlines policies which may help to offset and improve future air quality within the community.

The primary authority for regulating the air quality rests with the Federal government under the auspices of the Clean Air Act. However, the day to day responsibilities are embodied in the regional Bay Area Air Pollution Control District which has developed an Air Quality Management Plan for the Bay Area. The air quality analysis contained within this document is drawn from that report.

Clean Air Act
Air Quality
Management Plan

Principal Pollutants of the Air Basin

Particulate Matter

Particulate matter (airborne particles) result from natural sources such as wind erosion of the earth and mechanical processes such as aggregate extraction. Additionally, smaller particulates result from the operation of mechanical equipment such as automobile engines, tire wear and brake lining materials. While larger particles are rapidly expelled by the body's natural defense capabilities, very small particles can remain in the deepest lung recesses for weeks and even years at a time. Some airborne particulates are toxic in themselves or become so when combined with other products in the air basin. Organic compounds

such as those emitted by inefficient solid waste or diesel fuel combustion have been identified as carcinogenic agents in the context of long-term exposure.

Carbon Monoxide

Carbon Monoxide is a product of incomplete combustion. About 90% of this pollutant in urban air is attributable to motor vehicle traffic. Carbon Monoxide displaces oxygen from the blood stream diminishing an otherwise healthy person's ability to perform mentally and physically. Since carbon monoxide pollution is directly traced to automobile usage, higher concentrations of this element tend to follow highway patterns and are related to trip density, vehicle speed and congestion. Table 5-B and Figures 5-B and 5-C identify the California and national ambient air quality standards and described 1975 particulate and carbon monoxide distributions within the Bay Area.

Kaiser Permanente

By far the most significant stationary "point" source of air pollution in the immediate vicinity of Cupertino is the Kaiser Permanente Plant on the fringe of the western foothills. The nature of their production processes contributes a large quantity of particulate matter and oxides of nitrogen as a principal component of photochemical smog to the City's and the Valley's air basin. The Kaiser Permanente Plant is undergoing an extensive remodeling of its manufacturing process and a change in fuel type for cement kilns from fuel oil to coal.

A document prepared by Kaiser Cement and Gypsum supporting a categorical exemption (finding that the project does not require environmental assessment) for the modernization project found that the modernized plant will reduce total tons per day (TPD) of particles: Sulphur Dioxide and Nitrogen Oxide. Table 5-A is reproduced from the study.

TABLE 5-A

| <u>Production</u> | <u>Existing Facilities</u> | <u>Modernized Facilities</u> | <u>Percent of Existing</u> |
|---------------------------|----------------------------|------------------------------|----------------------------|
| Tons cement/year-millions | 1.6 | 1.6 | 100 |
| <u>Emissions - TPD</u> | | | |
| Particulates | .97 | .59 | 60 |
| SO ₂ | 12.3 | 5.8 | 48 |
| NO _x | 20.8 | 13.9 | 67 |

However, the document does not address probable particulate emissions resulting from the transportation, storage and crushing of coal.

While the Permanente Plant operation poses some environmental hazard to the community, the Plant also provides a product which is vital to the sustained growth of the region by fulfilling the

Table 5-B

Federal and California Ambient Air Quality Standards

| POLLUTANTS | AVERAGING TIME | CALIFORNIA STANDARDS | NATIONAL STANDARDS |
|---|-----------------------|---|------------------------------|
| Photochemical Oxidants | 1 Hr. | 0.10 ppm | 0.08 ppm |
| Carbon Monoxide | 12 Hr. | 10 ppm | |
| | 8 Hr. | | 9 ppm |
| | 1 Hr. | 40 ppm | 35 ppm |
| Nitrogen Dioxide | Annual Average | | 0.05 ppm |
| | 1 Hr. | 0.25 ppm | |
| Sulfur Dioxide | Annual Average | | 0.03 ppm |
| | 24 Hr. | 0.05 ppm ² | 0.14 ppm |
| | 1 Hr. | 0.5 ppm | |
| Suspended Particulate Matter | Annual Geometric Mean | 60 $\mu\text{g}/\text{m}^3$ | 75 $\mu\text{g}/\text{m}^3$ |
| | 24 Hr. | 100 $\mu\text{g}/\text{m}^3$ | 260 $\mu\text{g}/\text{m}^3$ |
| Lead | 30 Day Average | 1.5 $\mu\text{g}/\text{m}^3$ | |
| Hydrogen Sulfide | 1 Hr. | 0.03 ppm | |
| Hydrocarbons (Corrected for Methane) | 3 Hr. (6-9 a.m.) | | 160 $\mu\text{g}/\text{m}^3$ |
| Ethylene | 8 Hr. | 0.1 ppm | |
| | 1 Hr. | 0.5 ppm | |
| Visibility Reducing Particles | 1 Observation | In sufficient amount to reduce the prevailing visibility to less than 10 miles when the relative humidity is less than 70%. | |

1
National standards, other than those based on annual averages or annual geometric means, are not to be exceeded more than once per year.

National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health. Each State must attain the primary standards no later than 1982. In the case of photochemical oxidants and carbon monoxide, extensions to 1987 at the latest may be granted if certain conditions set forth by the Clean Air Act of 1977 are met.

2
With simultaneous violation of State 1-hour oxidant standard or State 24-hour suspended particulate matter standard.

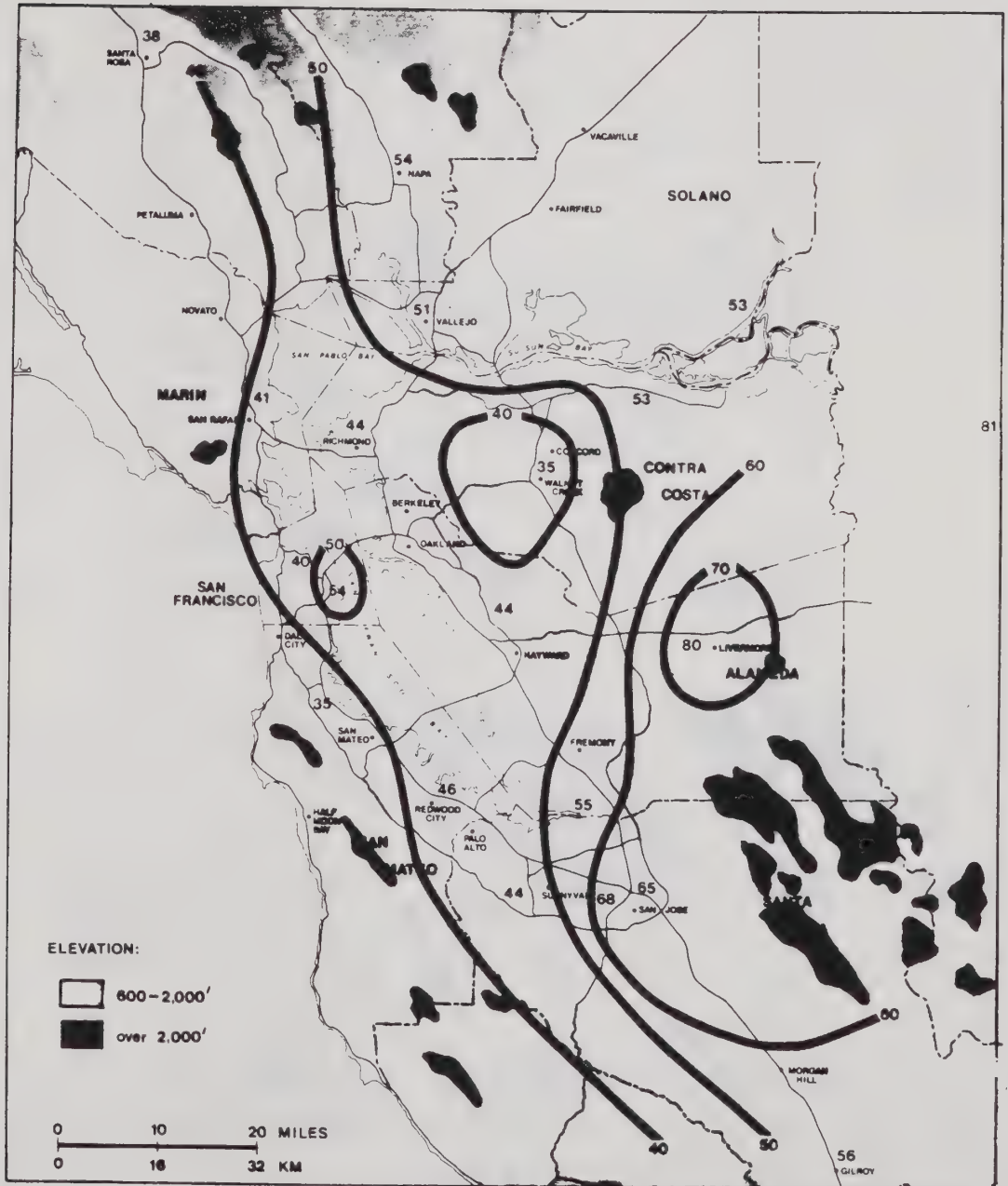


FIGURE 5-B

1975 ANNUAL GEOMETRIC MEANS OF TOTAL SUSPENDED PARTICULATE IN $\mu\text{g}/\text{m}^3$ (BY HI-VOLUME METHOD WITH FIBERGLASS FILTERS). FEDERAL PRIMARY STANDARD IS $75 \mu\text{g}/\text{m}^3$. STATE STANDARD IS $60 \mu\text{g}/\text{m}^3$.

CITY of CUPERTINO • comprehensive plan



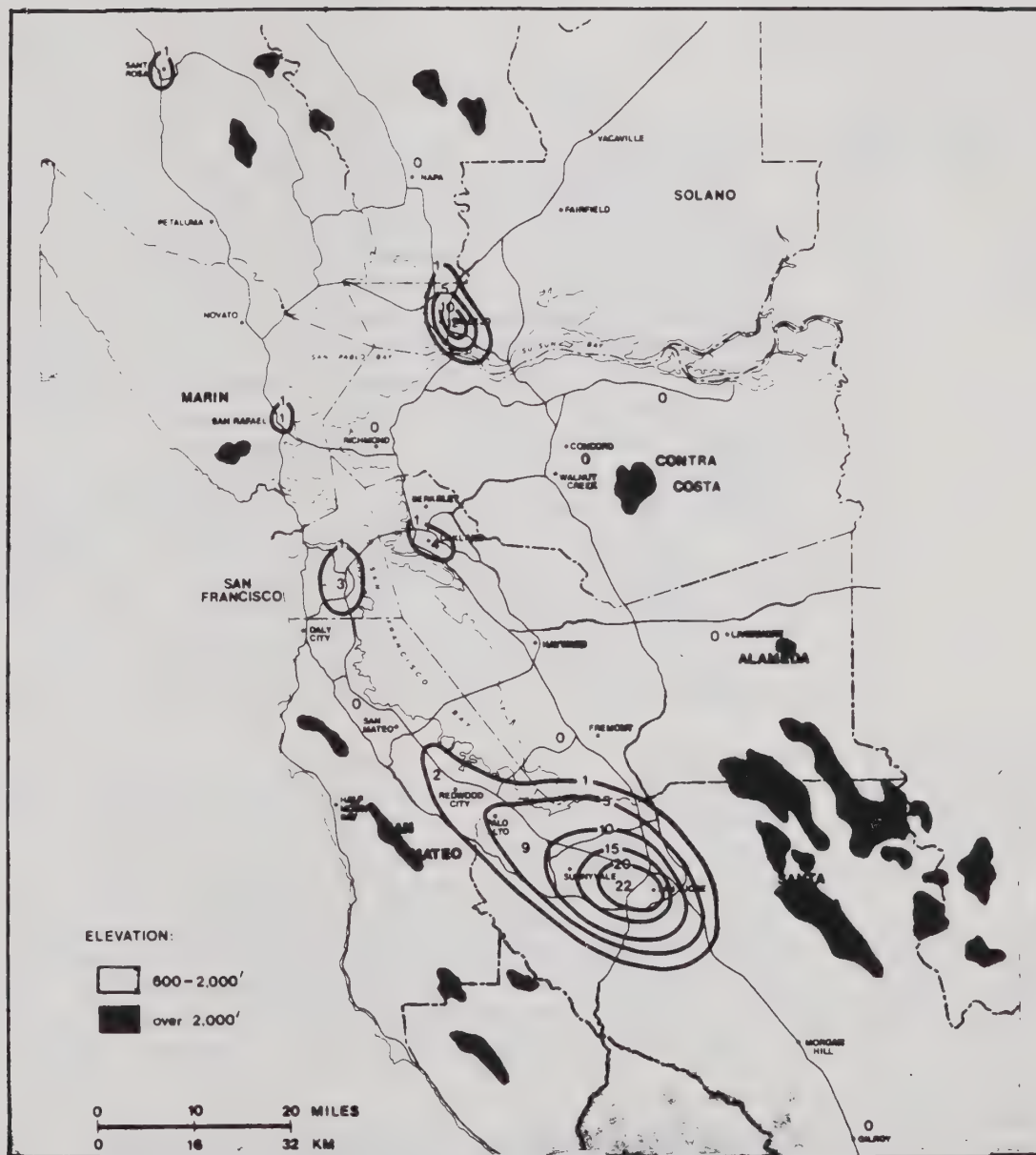


FIGURE 5-C

1975 ANNUAL NUMBER OF DAYS WITH CARBON MONOXIDE
EXCEEDING FEDERAL STANDARD (9 PARTS PER MILLION FOR 8 HOURS).

CITY of CUPERTINO • comprehensive plan



demand for high quality building materials. The close proximity of the Permanente Plant to its primary market area also minimizes the need for importation of such materials saving energy, fuel and an additional degradation of air quality.

Air Quality Policies

The circulation section of the General Plan contains policies which are designed to encourage alternative modes of transportation, to make the major arterial street system more efficient for commuters. The plan also encourages protection of single-family residential neighborhoods from through-commute traffic. The objective of increasing efficiency of traffic flow in the City will decrease congestion and therefore reduce air pollutant levels. The use of traffic management devices to discourage commute traffic in residential neighborhoods via circuitous road systems, diverters, consecutive series of stop signs, etc. could be counterproductive from an air quality point of view. The recently adopted Stevens Creek Boulevard Plan Line/General Plan Study demonstrated, for example, that the improvement of Stevens Creek Boulevard arterial would decrease congestion and, therefore, decrease pollutants. However, the study also demonstrated that a diverter system involving Byrne Avenue and Orange Avenue would increase local neighborhood traffic and thus increase vehicle miles traveled, increasing air pollution within the neighborhood. The Stevens Creek Boulevard Plan Line Study contains quantitative data describing the above phenomenon.

The traffic signal inter-connect system on Stevens Creek Boulevard and De Anza Boulevard will save approximately 400,000 gallons of gasoline which if burned would add to the air quality problems for areas immediately adjacent to the roadways involved and to residents living downwind in other jurisdictions. Installation of boulevard stop signs on Blaney Avenue, on the other hand, will increase gasoline consumption between Merritt Drive and John Drive. A study prepared for the boulevard stop signs estimates that approximately 140,000 gallons of gasoline will be expended as a direct result of the installation of five new stop signs over a one year period.

On a micro-scale, the City of Cupertino's policy of discouraging drive-up window facilities will not measurably improve the air quality within the jurisdiction. However, a study of the quality implications of the policy indicates that, contingent upon the configuration of the drive-up window, patrons queuing in line with engines idling could be exposed to high levels of carbon monoxide and other pollutants. The potential levels reached could be dangerous to persons with cardiovascular or pulmonary diseases. The drive-up window prohibition policy results in some inconvenience for handicapped individuals and parents who do not wish to supervise children during a banking transaction; however, the City's handicapped barrier removal policies and external walk-up windows help to ameliorate those problems.

The following policies are suggested as feasible actions of local government control which will help to increase the air quality for citizens within the community. Land use and transportation

Circulation
page 4-23

Traffic Signal
Interconnect
Feasibility Study,
JHK and Associates
Dec. 1977

Blaney Ave. Traffic
Study, Cupertino
Public Works Dept.
Oct. 1978

Carbon-Monoxide
and Sulfur-Oxide
Levels Attributable
to Use of Drive-Up
Window Facilities,
Professor Donald
Myronik, Ph. D.
Feb. 1978

ENVIRONMENTAL RESOURCES

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related policies and regional policies adopted in conjunction with the Bay Area Air Quality Maintenance Plan are not listed.

Policy 5-4: The City shall continue to assess the air pollution impacts associated with future City Land Use and Circulation planning efforts.

Policy 5-5: Drive-up window facilities for financial institutions, convenience restaurants, photo finishing businesses and similar establishments shall not be permitted.

Policy 5-6: The City shall investigate the feasibility of acquiring more fuel efficient vehicles for municipal use.

Policy 5-7: The City shall utilize the Cupertino Scene and other appropriate publications to inform residents of the danger of jogging and bicycling adjacent to heavily traveled arterial streets in terms of inhaling motor vehicle combustion pollutants. The City shall continue to expand its park course and jogging facilities commensurate with the demand for said facilities.

WILDLIFE AND VEGETATION

Animal habitations in the City of Cupertino are generally limited to the relatively less urbanized western foothills. Two main factors contribute to the minimal presence of non-domesticated animal life in the valley floor: First, the intensive use of the area by a large human population; second, the removal of available food sources and nesting vegetation as a result of fire control and weed removal, or building construction activity. Further, the domesticated animals introduced into the urban environment, such as dogs and cats, tend to react aggressively toward native birds and mammals, such as field mice, squirrels, English sparrows, or other common species which inhabit open urban fields.

Within the foothills, and especially within the streambed habitat of Stevens Creek, are found an abundant variety of birds, fish and mammals. Much of the preliminary reconnaissance for the study of the City's wildlife environment has been conducted on a Countywide basis. Conceptual limitations of various habitat associations are described on Figure 5-D and are keyed to Table 5-C.

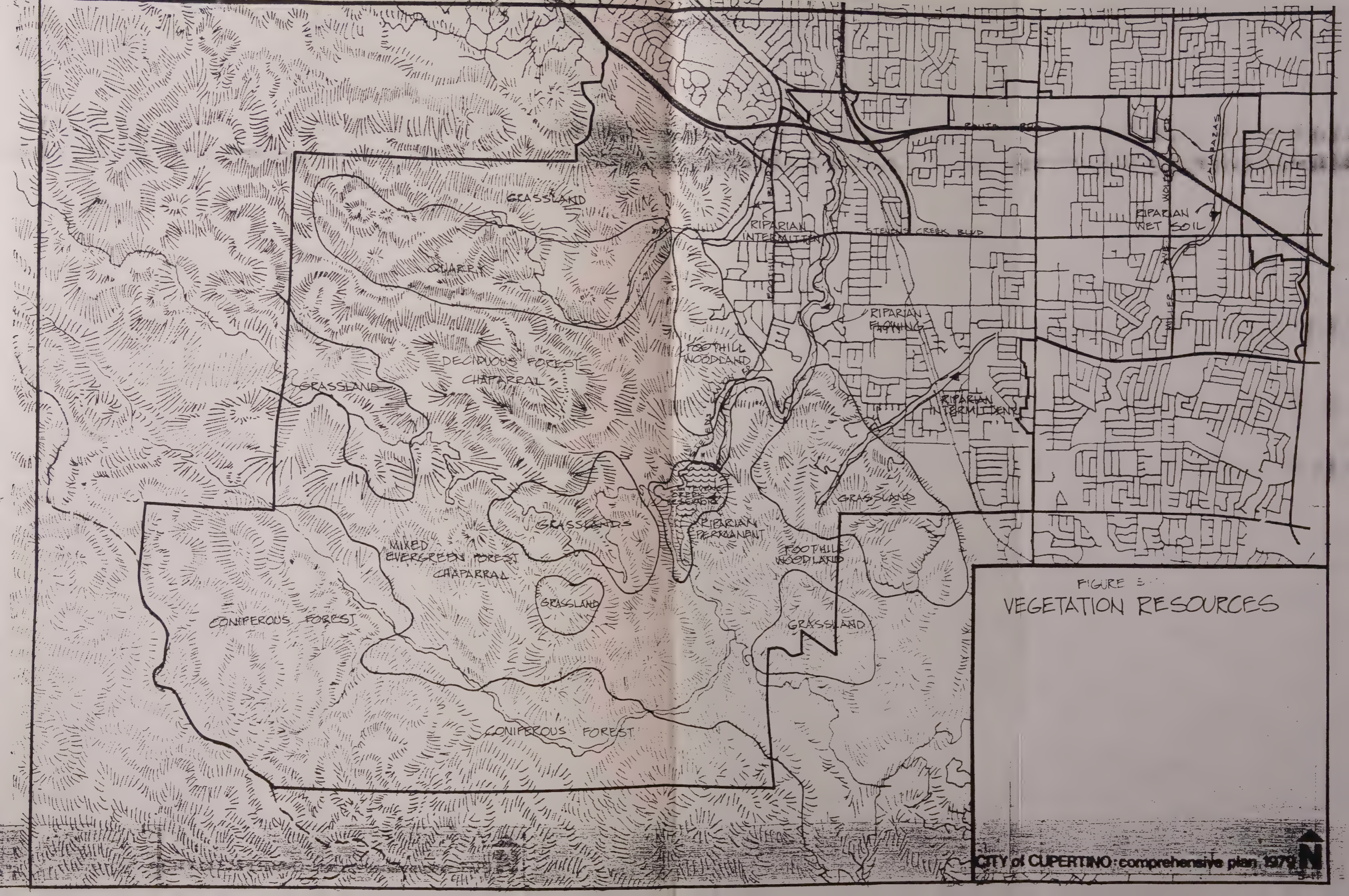


FIGURE 3
VEGETATION RESOURCES

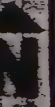


TABLE 5-C

| | |
|---------------------------------------|----------------------------------|
| Fresh Water Associated, permanents: | Lakes (reservoirs) |
| Fresh Water Associated, intermittent: | - Seasonal marshes |
| Fresh Water Associated, flowing: | - Live streams |
| Fresh Water Associated, flowing: | - Intermittent streams |
| Fresh Water Associated, wet soil: | - Riparian lands in valley floor |
| Fresh Water Associated, wet soil: | - Riparian lands in canyon |
| Grassland: | - Outer coast range grassland |
| Grassland: | - Inner coast range grassland |
| Chaparral: | - Hard chaparral in dry location |
| Chaparral: | - Soft chaparral in wet location |
| Foothill Woodland: | - |
| Mixed Evergreen Forest: | - |
| Coniferous Forest: | - Redwood Forest |

1. Fresh Water Association

Riparian vegetation is closely confined to the banks of Stevens Creek, a live stream flowing year round, and along the intermittently flowing banks of Regnart Creek and Heney Creek in the valley floor portion of the City. This association is rich in trees, shrubs, vines and herbaceous plants of many kinds and provides a habitat for numerous varieties of birds and animals not common in adjacent associations. Characteristic vegetative species are the Willow, Sycamore, Live Oak, Toyon, Blackberry Cattail and Spike Rush. The Yellow Warbler and Wilson's Warbler are two species of birds which are found almost exclusively in riparian habitats and are declining in population. Similarly, the Fox Squirrel, a riparian mammal, is also declining in numbers.

2. Grassland Association

The vegetative associations distinguished as Grasslands occur on the lower slopes of the western foothills, as well as at some of the higher peaks of the Montebello Ridge system. Dominant species include Yellow Star Thistle, Yellow Mustard, Wild Oats and Rye Grass. Much of the land area in this association was previously used for pasturing domestic animals. Accordingly, many of the species of vegetation are introduced, but have adapted well to climatic conditions in the area and to occasional disturbance from grazing and development of adjacent areas for orchards.

While not considered a rare species of wildlife, the Western Meadowlark depends upon a grassland environment for its living space. This bird has been identified as a permanent resident of the City's grassland environment, and is currently declining in its population.

3. Brushland Association

The dominant species which compose this element are Coyote Bush, Poison Oak, varieties of Ceanothus and Wild Rose. These areas are generally encountered on steeper slopes, or in transition areas between riparian and woodland habitats in characteristically dry locations. There are no threatened animal species observed in the Sphere of Influence within this association.

4. Foothill Woodland and Forest Association

The foothill woodlands plant community is characterized by scattered trees with an undergrowth consisting in some areas of herbaceous plants and low shrubs. Higher elevations of the Montebello Foothills include mixed varieties of hardwoods and some coniferous varieties including redwoods. These woodlands serve a number of purposes in the vegetative eco-system. Aside from their obvious benefit to wildlife as food sources, shelter, nesting or cover, these trees help to control erosion of soil from the various drainage basins occurring in the foothills and assist in moderating climatic conditions by reducing wind velocities, contributing to oxygen content of the atmosphere and neutralizing certain air pollutants.

The foothill and mountain woodlands also provide aesthetic relief to the urbanized appearance of the valley floor. Seasonal variation in color, variety of shape, and definition of hillside topography are all enhanced by the presence of the Montebello Ridge system's extensive tree cover. Endangered wildlife species found in this association are the San Francisco Garter Snake, and the Cooper's Hawk which is currently declining in population.

Impacts and Mitigation

The most destructive influence upon the existing state of flora and fauna in the Cupertino area is human activity, particularly urban development and resource extraction. Urbanization of mountain areas, and construction of new housing adjacent to stream beds are likely to be destructive to vegetative cover. Grading for roads, building sites and leveling for septic tank drain fields also contributes to destruction of vegetation and suggests the potential for soil erosion.

As is more extensively discussed in the Public Safety Element of this General Plan, fire is another source of danger to the vegetative resources of the City and to the animals which depend on the various vegetative habitats for food and shelter.

Actually, fire suppression is a mixed blessing in terms of the natural environment. On one hand, effective fire suppression maintains the scenic beauty of the wildlands, protects life and property and, on the surface at least, enhances wildlife habitat. On the other hand, wild fires are a natural phenomenon. There are several plant species within the Santa Cruz Mountain environment, particularly chaparral, that rely on periodic low intensity ground fires to germinate seeds and to eliminate unnaturally high

Fire Hazard
page 6-17

ENVIRONMENTAL RESOURCES

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growth levels of competing plants. Wildlife displaced from its customary habitats may be able to survive if a suitable environment change can be found within the vicinity. If an adjacent habitat with the requisite food and shelter cannot be found in the face of encroaching development, and other human caused changes to the environment, certain animals may be forced further away from the urban fringe or out of the planning areas eco-system altogether.

The following policies are suggested as a means of protecting and enhancing the valuable resources of animal and plant life for which the City of Cupertino is responsible.

Policy 5-8: Development of lands within the City's foothills, or adjacent to riparian environments shall be designed in a manner to minimize disturbance of natural vegetative cover and removal of specimen trees.

Policy 5-9: Landscaping of properties in close proximity to natural vegetation should emphasize the use of native plants and ground covers, particularly for control of erosion resulting from disturbance of natural terrain.

Policy 5-10: Fencing on hillside property should be confined to a limited "building envelope", rather than an entire site, so as not to preclude migratory movements of wild animals.

Policy 5-11: Recreational use of lands in natural areas should be limited to those kinds of activities that are compatible with preservation of natural vegetation, such as hiking, horseback riding and camping.

Policy 5-12: Public access to wildlife observation and fishing sites consistent with the preservation of important wildlife habitat areas should be provided.

RHS Ord. No. 881
Sec. 8.7 Fencing

MINERAL RESOURCES

The City's western foothills contain several commercially significant deposits of limestone, crushed rock, and the potential for quarrying of gravel and sand.

Much of what is known of the mineral significance of Montebello Ridge and its associated foothills results from a study conducted by the California State Division of Mines and Geology. Significant excerpts from the findings of that study will be discussed in this section of the Element. Mineral resource areas are delineated on the General Plan land use map.

Limestone

The most prominent mineral extraction operation in the City's Sphere of Influence is the high grade limestone quarry operated by Kaiser Cement and Gypsum Corporation. This facility was opened in 1939 to supply cement for concrete construction of the Shasta Dam. While the actual terrain of the Quarry makes certain estimates of the assured reserves of this resource impractical, recent capital investment in expansion of the Plant's reproduction processes will sustain output from this Plant for the foreseeable future.

Crushed Rock

Material sold as crushed rock is used for a variety of purposes including concrete aggregate, asphalt aggregate, roadway base and fill. Within the community's jurisdiction, the highest quality crushed rock is the limestone chert material produced as a by-product of the Kaiser Cement and Gypsum operation in the City's western foothills.

The Stevens Creek Quarry northwest of Stevens Creek Reservoir produces this material on an intermittent basis. Local demand for this high grade aggregate will also continue in response to sustained demand of regional population growth. Potential quarrying sites of crushed rock exist in many locations of the Montebello Ridge area. While the economic return to investors and operators of these facilities will determine the timing of their operation, sufficient space for extracting this material, including a suitable buffer between adjoining uses, should be considered in implementing a mineral resource area.

Sand and Gravel

No production of this commodity occurs currently in the Sphere of Influence, except for intermittent operation of the former Voss Quarry at the northwest edge of Stevens Creek Reservoir. Again, as economic returns become more favorable in light of demand for these materials, further extraction operations can be expected to take place.

Policy 5-13: The City of Cupertino should establish a mineral resource area designation to provide for the extraction of valuable mineral resources.

Policy 5-14: Regulations pertaining to mineral extraction shall include provisions for controlling air, noise and water pollution and scenic restoration. The controls shall apply to quarrying, processing and transportation.

Policy 5-15: The City should investigate the desirability of designating abandoned quarry sites for specified passive recreational purposes as a means of rehabilitating lands subject to mineral extraction.

WATER RESOURCES

Water is no longer considered an inexhaustible commodity but is recognized as a limited resource to be carefully managed. Although much effort has been devoted in recent years to water conservation and its various ramifications, the numerous agencies and levels of government concerned with regulating this commodity have resulted in a fragmented and, at times, ineffectual approach to conservation efforts.

Preservation of Watersheds

The City's 16 square miles of hillside land are characterized by abundant vegetation and heavy rainfall which combines to produce a very productive watershed. It is important not only to the City of Cupertino proper but to the Countywide water supply picture. In order to protect the quality of water within the City's drainage basin, it is important to ensure that grading plans for individual developments are prepared from the viewpoint of incorporating erosion control measures. Erosion control eliminates the process of siltation which affects the visual quality of natural water courses, reduces wildlife and diminishes ground water recharge capabilities of streambeds.

Ground Water Recharge Facilities

The Santa Clara Valley ground water basin is the largest supply of water in the County. The ground water basin has an estimated storage capacity of 1,770,000 acre feet of water compared to a total surface storage capability in the water district reservoirs of only 160,000 acre feet. In order to reduce the trend of overdrafting the underground water basin through wells, the Water District has initiated a recharge program. The key aspect of the ground water recharge program is the strategic siting of percolation facilities throughout Santa Clara Valley at locations where the geological composition of soils are conducive. There are two such ground water recharge facilities within the City of Cupertino.

Policy 5-16: The City of Cupertino shall continue to support the efforts of the Santa Clara Valley Water District to investigate and develop suitable ground water recharge sites within its sphere of influence, and where feasible to provide for public recreation uses of the completed facility.

Man-Made Water Resources

Figure 5-E depicts the generalized service areas of the City's three major water suppliers. In addition to these sources, a private water service cooperative (i.e. the Reglin Mutual Water Company) serves a portion of Regnart Canyon.

There are three main water sources for the City of Cupertino: wells fed by ground water, surface run-off into Stevens Creek Reservoir, contributing to local ground water recharge and imported water from the Rinconada Treatment Plant. Currently, the City obtains approximately 1.6 million gallons per day from ground water draft and approximately 1.2 million gallons per day from the Rinconada Treatment Plant. Additionally, Stevens Creek Reservoir yields approximately 2,500 acre feet per year to seasonal run-off from ground water recharge. The Santa Clara Valley Water District has projected the total demand for domestic water in the City of Cupertino Service Area will approximate 6.85 million gallons of water per day by the year 1990, which is double the current yearly demand. It is not known whether conservation measures will reduce the projected yearly consumption.

In order to meet the projected demands for all water users within the County, the San Felipe Water Importation Project was approved and is currently under construction. In addition to water importation via the San Felipe project, the Santa Clara Valley Water District has studied the possibility of reclamation of waste waters for agricultural and certain industrial applications. The District's findings indicate that a redundant implementation of both the San Felipe project and widespread use of reclaimed water would overfill projected demands in the service area by approximately 40%. Additionally, agricultural irrigation in North County will substantially diminish to insignificant levels by the year 1990.

Conservation of Urban Water Usage

The City of Cupertino has rapidly evolved a dynamic employment base overwhelmingly oriented toward new technologies in the solid state electronics industry. One of the drawbacks associated with a concentration of such activity is the tremendous demands for domestic water required in the manufacturing process. These localized demands become particularly acute in the City's industrial parks where groups of these industries are concentrated in a limited geographic space. Not only do certain product manufacturers demand large amounts of water in their fabrication process, but consequently discharge vast amounts of industrial waste into the sanitary sewer system.

In response to the accelerated demand for industrial delivery of quality domestic water, the City of Cupertino should continue to work with Cupertino Sanitary District and other agencies involved in water conservation and waste water management to implement the following policies.

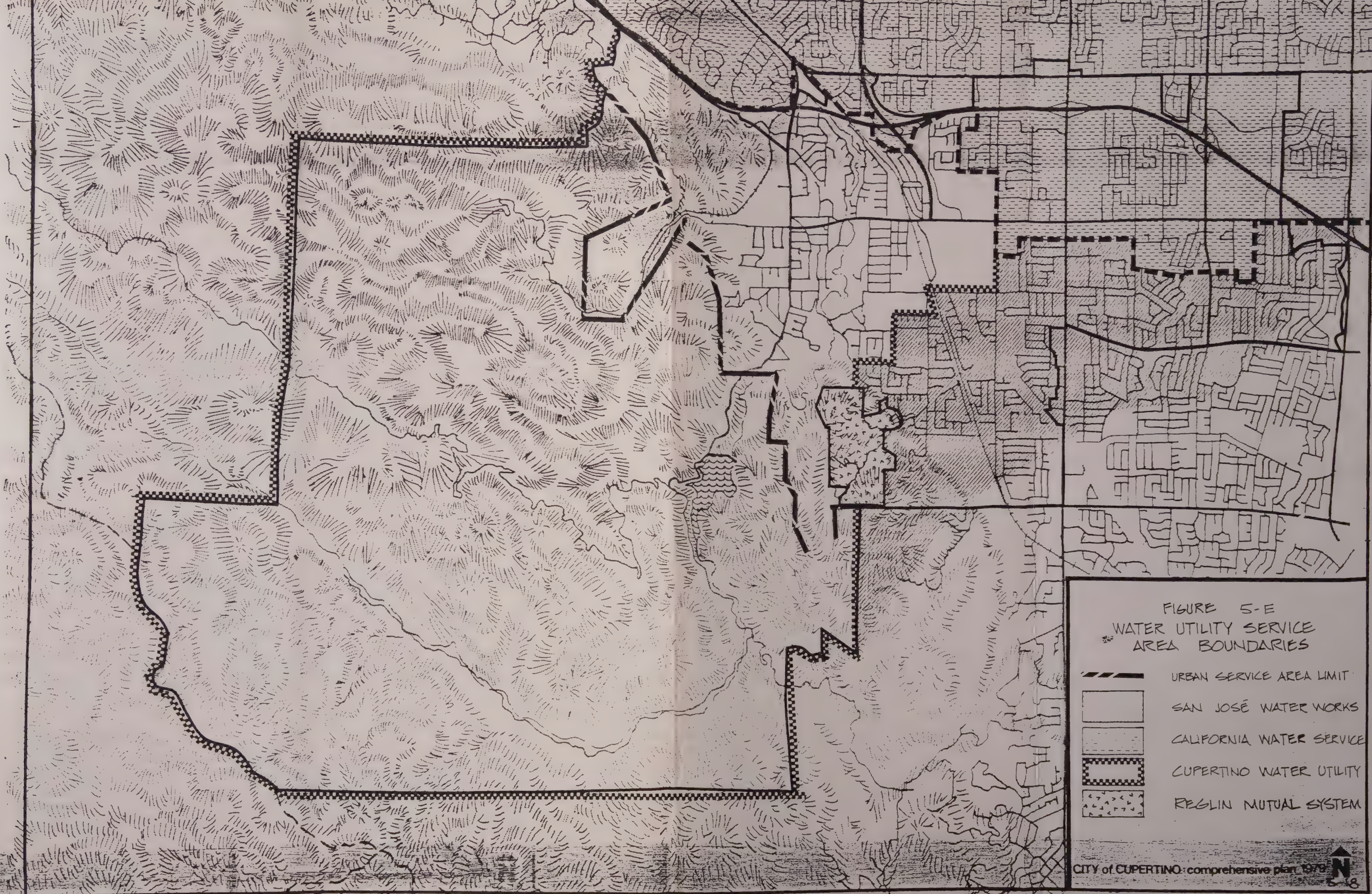


FIGURE 5-E
WATER UTILITY SERVICE
AREA BOUNDARIES

- URBAN SERVICE AREA LIMIT
- SAN JOSÉ WATER WORKS
- CALIFORNIA WATER SERVICE
- CUPERTINO WATER UTILITY
- REGLIN MUTUAL SYSTEM

Policy 5-17: The City of Cupertino should continue to implement and refine its water utility rate schedule to provide economic incentives for conservation.

Policy 5-18: The City of Cupertino, in conjunction with the Cupertino Sanitary District, shall encourage industrial projects, particularly at the building permit stage of approval, to incorporate recycling equipment for manufacturing and pooling water supplies in plant as long-term conservation measures.

Policy 5-19: Natural creek beds should be retained in a natural state to facilitate ground water percolation.

The City's Architectural and Site Approval Committee now requires, as a standard condition of approval for non-residential projects, the extensive use of on-site drought-resistant and "native" plant species. Additionally, the Land Use/Community Character Section discusses the need for implementing a comprehensive landscape management plan to ensure long-range maintenance of irrigation equipment and plant material. These measures are intended to retain the high quality of visual appearance of domestic landscaping for which the City is well known without excessive demand on limited domestic water supplies. Public and private cooperation in this regard has been supported by the development community and should continue for the foreseeable future.

Land Use/Community
Character
page 2-13
policy 2-11

ENERGY CONSERVATION

The escalating costs of personal energy consumption, and the ever-decreasing availability of some of the vital sources of fuel upon which our current living standard depends, reinforce the critical need to increase our efficiency in the use of energy. To some extent, energy conservation is an individual responsibility. Personal efforts to minimize energy abuse may prove more effective and less costly than a complex system of government regulations. This section of the Element discusses the current energy usage problem and suggests local policy options to encourage a positive approach to conservation.

Regional Perspective

In 1972, the nationwide raw energy total equaled about 70×10^{15} BTU. Residential and commercial operations used about 19.5%; transportation 24%; industry 31%; and electrical utilities 24.5%. Households required an annual input of about 15×10^{15} BTU, of which more than one-half is discarded as waste energy. In particular, space heating consumes some 65% of the

residential energy budget and results in about 80% of the quantity of wasted energy. At the same time, water heating consumed about 13% of the residential energy budget; lighting about 10%; cooling 5% and cooking 5%.

In California, 96% of the residences are gas heated, the remainder use electrical heating. Negligible amounts of oil, coal or wood are used for space heating. In 1972, in the Bay Area, an average of 2.7×10^{12} BTU per day were consumed by the following users.

| | |
|----------------|-------|
| Domestic | 17.1% |
| Commercial | 6.5% |
| Refineries | 18.4% |
| Utilities | 15.4% |
| Industrial | 10.6% |
| Transportation | 30.5% |
| Miscellaneous | 1.6% |

During that period, 2.8 million cars and light duty trucks consumed six million gallons of gasoline while driving about 76 million miles (Reference E-5). This consumption amounts to about 0.67×10^{12} BTU per day or about one quarter of the daily energy budget.

In the Santa Clara Valley, the average household uses about 15 kilowatts per day (about 160,000 BTU) of electricity; and 3.3 therms of natural gas (about 330,000 BTU). These figures are annual consumption reduced to an average per day.

In perspective, then, focusing attention on the City of Cupertino as a "typical" component of the Santa Clara Valley in terms of land use mix, considerable energy savings could result from:

- (i) reducing energy-wastefulness or incorporating alternative space and water heating processes;
- (ii) considering efficiency in lighting, cooling and cooking processes;
- (iii) reducing unnecessary usage/dependency on vehicles driven by residents.

A recent study by the Cupertino Planning Department demonstrates the effect of development in the flatter regions where, because of proximity to major roadways, transportation energy requirements are only about 15% of the total energy demand. At higher elevations about 30% of the total energy budget is used on transportation only. Thus, besides using more energy per dwelling unit, the residents of the higher slopes, use twice the energy to access their property compared to residents nearer the valley floor.

Using the suggestions offered in the mitigation section of this report, the energy usage levels may be potentially reduced by at least a third.

Residential Energy Use Mitigation Measures

1. Types of Construction:

Single-family detached dwellings have a higher heat loss per square foot of floor area than individual dwellings in condominiums, townhouses, semi-detached dwellings and apartments in apartment buildings. The reduction in the ratio of exterior wall area to horizontal floor area (which, excluding curved surfaces, is lower for a simple square floor plan) also reduces energy/heat losses. Thus a one story house of rectangular or "L" shape has the same heat loss as a two story square layout house. In both cases walls and ceilings were insulated. The use of "H" or "T" shaped floor plans results in even higher heat losses compared to the square layout. (References E-10, E-11)

2. Insulation/Heat Loss Protection

Insulation in the residence floors, walls and ceilings makes a large difference in heat loss and heat gain. In the Bay area a well insulated home has little need for air conditioning on most warm-weather days. The use of insulation with effective thermal resistance designation R-19 in ceilings and walls with R-11 in floors will considerably reduce annual heating and air conditioning costs. These designations are higher than values required for compliance in California as specified in Title 25, Article 5, Section 1094 of the State Housing and Community Development Code.

For slab-on-grade houses, edge insulation reduces heat losses from the interior. If perimeter heating ducts are used under the slab, even greater heat losses will be avoided by using edge insulation.

Insulated thermal windows can further reduce interior energy loss, as can use of storm doors and sealed fireplace flues to reduce air infiltration, and use of light exterior colors to reduce solar heat gain.

For apartment complexes, cluster houses or a consortium of residences a heat pump system can be used to provide adequate space and water heating and space cooling of the facility, using less than half the energy required to perform the same tasks with conventional heaters or coolers (Reference E-3). Currently available solar heat collecting panels can be used to augment the usual pool heating systems.

3. Orientation of Buildings

In general, for buildings at the Hill Area latitude, an eave overhang of 32 to 24 inches will shade exposed walls and windows from the direct rays of summer sunshine. In the winter months, the lower azimuthal path of the sun (closer to the horizon) allows some of the sun's rays to penetrate under the eaves and provide a desirable heat gain.

It is thermally advantageous to use more glazing in southeast,

Housing and Community
Development Code
Title 25, Article 5
Section 1094

south and southwest exposures, and shade these openings by trees, shrubs or awnings as well as eave overhang to reduce summer solar heat gain (Reference E-10). Evergreen trees on the northerly exposures act as a barrier to wind. Leaf bearing trees on southerly exposures shade the building in the summer; yet upon dropping their leaves in winter, allow solar heat gain. Shrubs, trellises, hedges, should be carefully planned to provide natural wind breaks for building entrances. Air conditioner condensers must be located in shaded areas with plenty of natural ventilation. Doing so increases the air conditioner compressor efficiency which in turn reduces energy consumed.

Reference E-10

Transportation Energy Conservation Practices

In the Santa Clara Valley, individual reliance on the private automobile appears to be an ongoing trend. In turn, these vehicles continue to be not only a principal source of pollution emissions, but inefficiently consume vast amounts of energy in the form of gasoline, materials to build them and the roads they require.

The City of Cupertino has taken an affirmative policy approach to providing incentives for alternative transit mode usage. Conditions of approval for major industrial developments have required experimental usage of employee van-pooling. A major bus-system transfer facility is planned for the Vallco Regional Shopping Center to encourage use of the system for commute trips.

Recognizing that the automobile will probably continue to remain the preferred mode of personal travel for the foreseeable future, the City Council recently approved construction of a traffic signal interconnect system for the major commute boulevards. This electronic signal control equipment will facilitate traffic volume movement by allowing more flexible and sensitive manipulation of intersection equipment over a longer geographic segment of the total commute path. If the interconnect functions as intended, vehicle operating costs diminish, resulting in improved air quality and gasoline economy. The Traffic Signal Interconnect Feasibility Study made the following findings regarding gasoline consumption:

Traffic Signal
Interconnect
Feasibility Study,
JHK and Associates
Dec. 1977

The principal component of the savings in vehicle operating costs is a reduction in the amount of fuel consumed.

The average amount of fuel saved per stop is 0.00795 gallons, and the average amount of fuel consumed per hour of idling is 0.368 gallons.

The savings in gasoline on a typical weekday would be as follows:

Air Quality
page 5-9

| | |
|---|-----------------------|
| 100,000 stops x 0.00795 gallons per stop | = 795 gallons |
| plus 1,400 hours x 0.368 gallons per hour | = 515 gallons |
| Total | 1,310 gallons per day |

On an annual basis, this would amount to a savings of over 400,000 gallons of gasoline for the same amount of travel.

Open Space Resources

PUBLIC OPEN SPACE MANAGEMENT-REGIONAL AGENCY ACTIONS

The task of acquiring, maintaining, accessing and developing open space lands for the enjoyment of residents in Cupertino and surrounding communities is fragmented among several public agencies, each of which has a unique function to perform in the overall process, and each of which provides facilities of varying suitability for the wide range of contemporary human leisure activities. Some of these public open space lands afford the opportunity for intensive or low-intensity recreation; some of these lands emphasize scenic beauty; still others preserve significant vegetation or wildlife habitats or help to control urban sprawl.

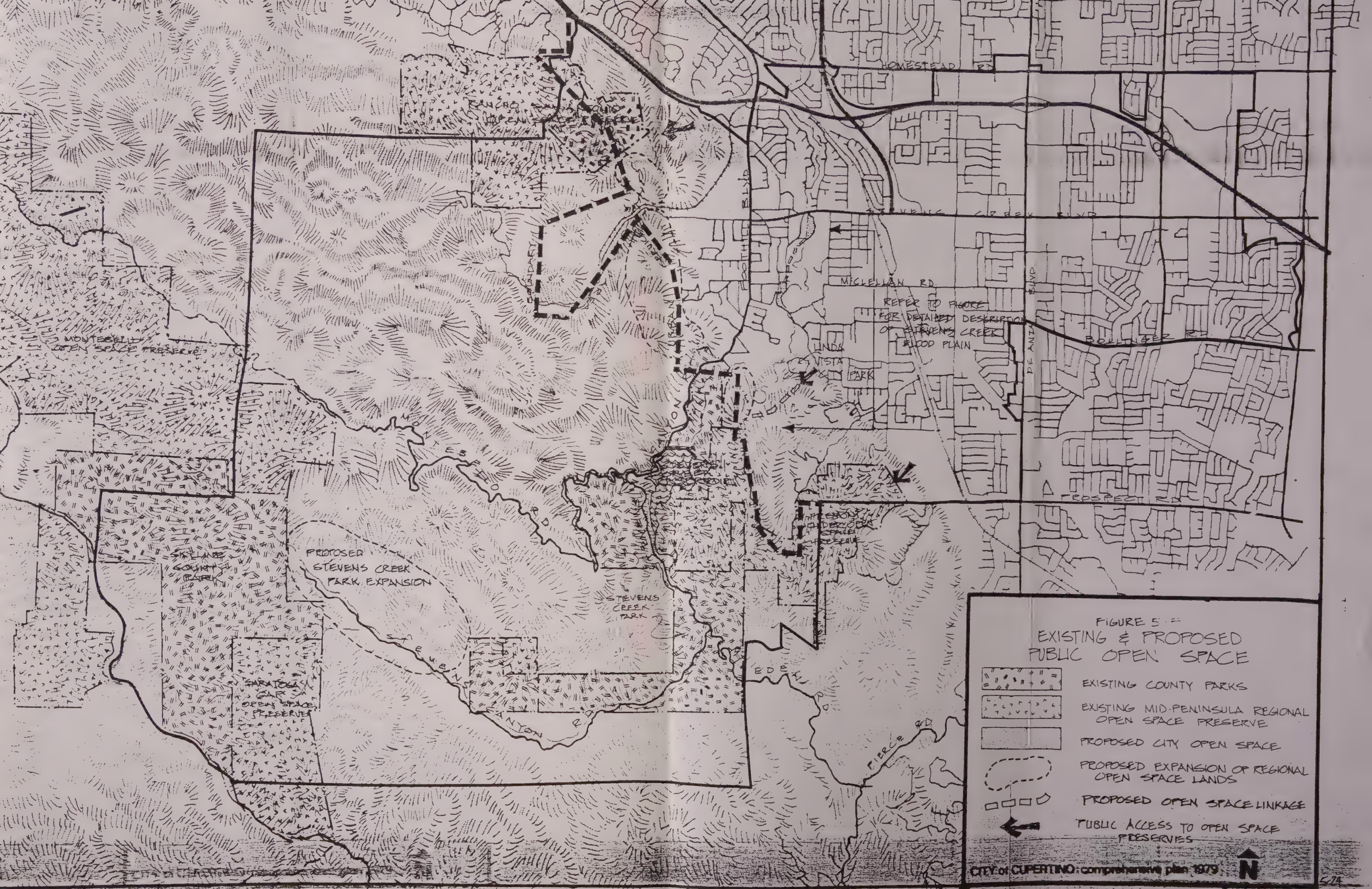
MidPeninsula Regional Open Space District

The MidPeninsula Regional Open Space District was created in 1972 by the County electorate and was originally titled "MidPeninsula Regional Park District". The connotation of "park" in the organization's original title, however, caused some general confusion for the public relative to its larger objective of preserving unique and sensitive wildland habitats in an undisturbed state by careful control of access. Perhaps some of this confusion can be traced to the traditional interpretation of urban park lands as places of relatively unlimited access which are developed for intensive recreational uses. To more accurately reflect its intended function, therefore, the organization changed its title to "MidPeninsula Regional Open Space District" in 1978.

District lands within the City are low-intensity use facilities intended to promote the long-term protection of valuable open space resources from encroaching urbanization. Figure 5-F depicts the current holdings of the MidPeninsula Regional Open Space District in Cupertino's Sphere of Influence; these acquisitions have been evaluated according to three principal criteria:

- Open Space for scenic preservation
- Open Space for preservation of unique sites
- Open Space for guiding urban form

Perhaps the most controversial acquisition strategy of the MidPeninsula Regional Open Space District is that of influencing urban form within the cities encompassed by the District's



boundaries. The District has purchased key properties in the City's Urban Service Area boundary, the effect of which is to restrict further geographic extension of infrastructure services into the foothills and contain future growth within Cupertino's urbanized valley floor. The District's de facto growth management policy could be considered a pre-emption of local use planning prerogatives. However, in 1976 the Cupertino City Council and the District Board agreed to a review procedure involving District purchases in Cupertino's Sphere of Influence. Their informal agreement provides for City review of potential purchases within the Urban Service Area and Carte Blanche approval (no review) of all acquisitions outside of the Urban Service Area.

Santa Clara County

The bulk of the hillside area located within the sphere of influence is unincorporated and undeveloped and therefore County land use policies would dictate the final land use form of the area. In 1974, the County Board of Supervisors adopted the Montebello Ridge Plan which had the primary objective of preserving and retaining the natural open space character of Montebello Ridge and Stevens Canyon primarily through a restrictive slope-density formula approach to controlling the number of dwelling units. The Supervisors recently enacted a more restrictive land use policy for the Montebello Ridge/Stevens Canyon planning area via a slope density formula that requires 20 acre minimums for a 0% slope up to 160 acres per lot for a slope over 45%. The enactment of the HRS-20 zone within the Cupertino planning area dramatically reduced the theoretical maximum dwelling units from approximately 830 to a range of between 115 to 190 dwelling units.

The Santa Clara Montebello Ridge Plan is adopted by reference. It is anticipated that the County Board of Supervisors will amend the plan in the near future to reflect the more restrictive RH-20 zoning district land use limitations; the Cupertino Plan will also be amended accordingly. The Montebello Ridge Plan is delineated on the General Plan land use map.

Policy 5-20: The Santa Clara County Board of Supervisors is encouraged to amend its Comprehensive General Plan to reflect the "RHS-20" zoning restrictions.

Santa Clara County Parks Program

The Santa Clara County Parks Acquisition and Development Charter Amendment which was approved in 1972 and reaffirmed in 1978 provides for a tax over-ride to acquire and develop a regionally oriented park system. Table 5-D described a proposed 1972-1982 budget and actual expenditures for parks within the Cupertino's Sphere of Influence. The presently adopted Capital Improvements Program places a relatively high emphasis on completion of Upper Stevens Creek Park and its connection to Stevens Creek. Given the sensitive environmental setting of the upper portions of Stevens Canyon, the County's Parks and Recreation Department should be asked to re-evaluate its development commitment and

TABLE 5-D

Santa Clara County Parks Charter Amendment 10 Year Program For Parks In
Cupertino Sphere of Influence

| | Proposed Budget 1972-1982 | | Actual Expenditure 1972 - Oct. 1978 | |
|--|------------------------------|----------------|--|-------------|
| | Acquisition | Development | Acquisition | Development |
| Lower Stevens Creek | | 400,000 | | 259,500 |
| Stevens Creek Connection | 2,000,000 | 400,000 | 55,000 | |
| Upper Stevens Creek | | 900,000 | | 5,500 |
| Skyline Recreation Route ¹ | 2,600,000 ¹ | 0 | | |
| Rancho San Antonio ² (Church Property) | 0 ² | 0 ² | 2,838,000 | |
| | 4,600,000 | 1,700,000 | 2,893,000 | 265,100 |

1. The Skyline Recreation Route involves scenic easements and lineal parks for a geographical area ranging from the San Benito County on the south to San Mateo County to the north. The County plan concentrates on parcels located in Cupertino's Sphere of Influence.
2. The 132 acre Rancho San Antonio Park was not considered in the initial 1972 plan.

determine whether or not the greater priority should be placed on acquisition for those two park areas. Representatives from the Parks Department have indicated that the County is becoming increasingly aware of long-term maintenance costs and accordingly, the new Capital Improvements Program to reflect the 1978 Charter Amendment may place a greater emphasis on acquisition.

Policy 5-21: It is recommended that the County Board of Supervisors reaffirm the goal of connecting upper and lower Stevens Creek Park. The County Board of Supervisors should direct its staff to evaluate the development program for lower and upper Stevens Creek parks to consider whether or not the heavy emphasis on development will result in traffic related impacts that are inappropriate for the pristine sections of the hillside. The review should consider whether limited funds are better spent on acquisition.

Santa Clara Valley Water District

The Santa Clara Valley Water District can continue to play a significant role in implementing the City of Cupertino's open space policies. The District assisted the City of Cupertino in the preparation of its natural flood plain policy for the reach of Stevens Creek between Stevens Creek Boulevard and the Reservoir and participated directly in the acquisition of open space lands within McClellan Ranch Park. The District also created a unique Flood Protection Program for that reach of Stevens Creek adjacent to the Creston and Oakdell Ranch neighborhoods.

The Water District is currently involved with a study of the

ability of Stevens Creek Reservoir to withstand earthquake damage. The preliminary report indicates that because the reservoir structure is not adequately compacted the reservoir may sustain damage if an 8.3 magnitude earthquake occurs on the San Andreas fault. If further studies indicate that the reservoir is unsafe, one option is to abandon it, designate the site as surplus, and offer it for private sale.

Policy 5-22: The City of Cupertino shall strive to retain the watershed and storage basin properties of Stevens Creek Reservoir in public ownership should the Santa Clara Valley Water District elect to abandon the facility at a future time.

CITY OF CUPERTINO OPEN SPACE POLICIES AND PROGRAMS

The City's primary role in open space planning is the development of neighborhood parks which is discussed in a subsequent section of this Element. However, the City General Plan does include policies which are designed to encourage the MidPeninsula Regional Open Space and the County Parks System to complete phases of their respective open space programs and more directly to acquire certain properties that are deemed vital to be publicly owned and yet retained in a passive use.

Figure 5-F identifies key properties that should be included within the County Parks System or MidPeninsula Regional Open Space District. The intent is to provide a continuous open space green belt adjacent to the City's Urban Service Area.

Policy 5-23: The City of Cupertino shall continue to foster inter-agency cooperation regarding the acquisition of properties in proximity to the westerly urban service area limit to complete a continuous open space/trail linkage along the lower foothills.

The Stevens Creek Flood Plain is the most prominent open space resource within the City's urbanized area. The General Plan Land Use Map designates land within the boundary of the 100 year flood plain for recreation and agricultural uses with adjoining properties designated for low intensity residential activities. Since the late 1950's a myriad of jurisdictions have advocated an urban trail adjacent and parallel to Stevens Creek extending from San Francisco Bay to the Pacific Ocean. The City's 1964 Plan and a later plan adopted in 1972 proposed an ambitious acquisition program to acquire vacant lands within the flood plain for this purpose.

The barrier affect caused by construction of 280 Freeway coupled with encroachment of residential development breaks the continuity of the proposed ocean to the bay trail system. Accordingly, there will most probably be urban linkages connecting the trail from Homestead Road to Lower Stevens Canyon Park via Foothill

Boulevard and Stevens Canyon Road. The Cupertino Plan retains the open space character of the Stevens Creek Flood Plain between the reservoir and Stevens Creek Boulevard; however, the intent is not to provide an urban trail system characterized by formalized asphalt hiking path/biking path. Figure 5-G identifies key acquisitions that should be completed in order to preserve the open space character of the flood plain. To enable the community to have flexibility regarding future uses, the plan includes a list of uses ranging from very passive extension of the City's Naturalist Program to active use involving the expansion of two existing golf courses.

The Stocklmeir property is uniquely suited for a joint open space and historic preservation site. A future decision involving the acquisition of the Stocklmeir property will be triggered either by request of Mr. Stocklmeir or a subsequent owner of the property for development or for dedication for open space purposes or it could be pursued directly by the community. If the community determined that the cost of acquisition is too high or the long-term maintenance of the site for historical purposes is too great, then the property would remain in private hands. Since the bulk of the property is within the natural flood plain, its development potential for residential activity is limited to a small area around the existing homesite that is located outside of the natural flood plain.

The balance of the properties proposed for acquisition will be listed in the City's Capital Improvements Program. The open space acquisition and public trail easement through the 150-acre-plus "Kaiser Property" south of Linda Vista Park shall be accomplished through the development review process for a subsequent residential development.

Policy 5-24: The City of Cupertino will strive to acquire the open space lands and trail linkages described on Figure 5-G.

PRIVATE OPEN SPACE RESOURCES

In response to market demand, private enterprise has created several specialized open space/recreational activity centers within the Sphere of Influence. These sites are an invaluable element in the overall open space network of the community since they satisfy specific leisure services which cannot otherwise be addressed adequately by public agency action due to their capital intensive nature and limited constituency relative to the City as a whole. Private open space operations in this category include golf courses, riding stables and tennis/swimming clubs. Adequate land use controls and incentives should be incorporated in public policy for continued existence of these facilities.

Policy 5-25: The City of Cupertino recognizes the integral value of private open space/recreation facilities within the overall context of the City's open space network. Accordingly, the City will encourage the continued existence and economic vitality of these private facilities through incentive and development controls appropriate to public agency action.

Land Use,
Community Character
page 2-27
policy 2-32

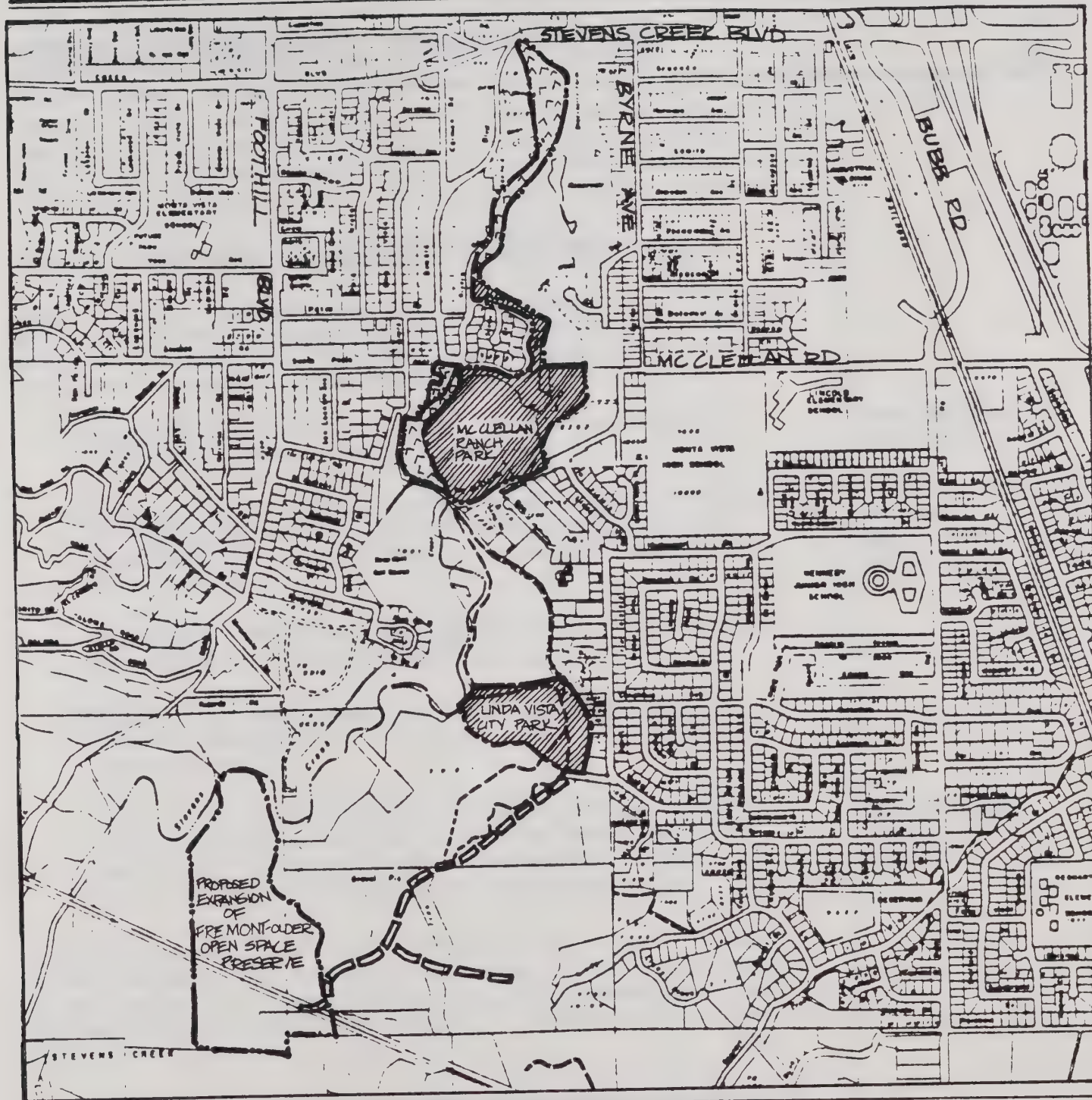
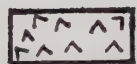


FIGURE 5-G
PUBLIC OPEN SPACE IN THE STEVENS CREEK
FLOOD PLAIN



OPEN SPACE ACQUISITIONS



EXISTING PUBLIC OPEN SPACE



PROPOSED OPEN SPACE LINKAGE



ENVIRONMENTAL RESOURCES

5-30

Another category of privately-controlled open space territory is that occupied by utility system power line corridors. Within the City's foothills are several such easements which serve as migration paths for deer and other animals moving between territories and foot sources.

CITY OF CUPERTINO NEIGHBORHOOD PARKS PROGRAM

One of the major roles of the City of Cupertino is to provide a neighborhood parks system which satisfies the active recreation needs of the community. The neighborhood park system will be developed based upon the following policies:

Policy 5-26: Park system should provide space equal to 3 acres of land for each 1,000 persons.

Policy 5-27: Each household within the community should be within $\frac{1}{2}$ mile of walking distance to the park and reasonably free from physical barriers including heavily trafficked streets.

Policy 5-28: Neighborhood parks should be at a minimum of 3.5 acres to provide flexibility of use.

Policy 5-29: Neighborhood parks should be of informal design to increase use flexibility and to decrease long-term maintenance.

Policy 5-30: Parks shall be circled by public streets. Wherever possible, existing parks containing adequate space should be re-evaluated to determine whether or not installation of a perimeter road is feasible.

A previously adopted objective providing for 2 acres of land/1,000 population for community park space is rescinded because of the absence of adequate vacant land, the absence of funds, and the determination to concentrate on the expansion of Memorial Park.

Policy 5-31: With the exception of a possible acquisition of a portion of a surplus high school site, the community parks program is limited to the continued development of Memorial Park.

Definition of Need

Figure 5-H identifies sub-neighborhoods within the community that are isolated by physical barriers, consisting of land forms or transportation borders such as railroad tracks and heavily trafficked arterial streets. Table 5-E identifies the 1977 population estimates and 1990 population projections.

Park Dedication
Muni Code 3.28

Divisive Effects of
Roadways
page 2-16
policy 2-16

Public Safety
Policy 6-30
page 6-55

Figure 5H
NEIGHBORHOOD MAP

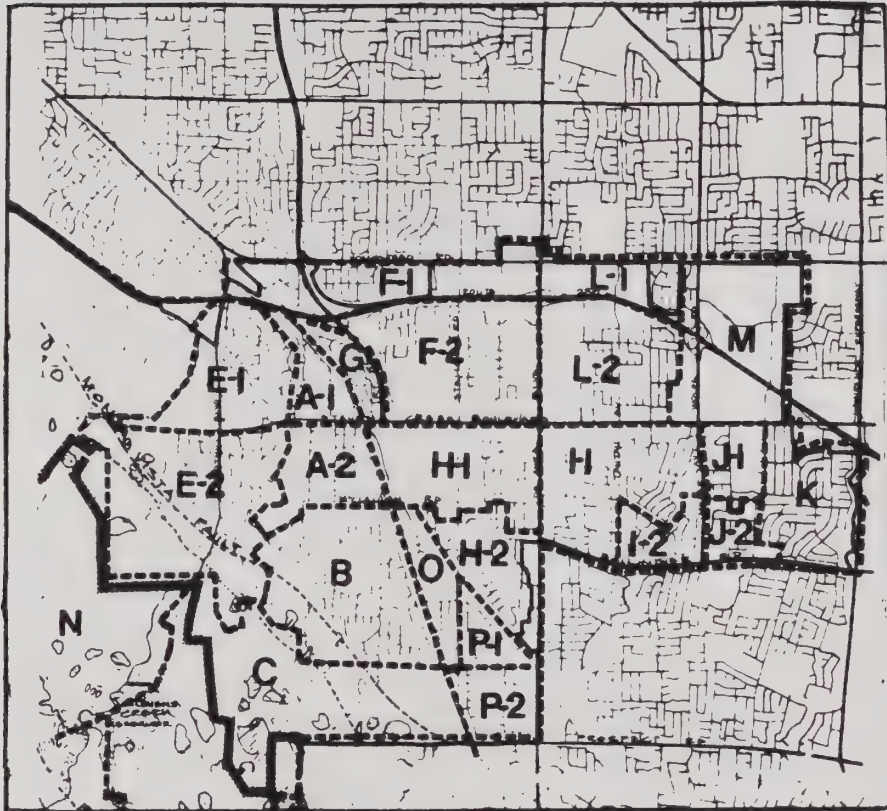


TABLE 5-E
Estimated 1977 and Projected 1990 Population for Cupertino
Urban Service Area

| Neighborhood Park Units | 1977 Population Estimate | 1990 Population Projection |
|----------------------------|-----------------------------|-------------------------------|
| A-1 | 770 | 700 |
| A-2 | 1235 | 1400 |
| B Without San Jose | 3375 | 2890 |
| San Jose Increment in B* | 1810 | 1445 |
| C | 170 | 1535 |
| E-1 | 2510 | 2820 |
| E-2 | 4110 | 4215 |
| F-1 | 700 | 590 |
| F-2 | 5730 | 5570 |
| G | 885 | 720 |
| H-1 | 1885 | 1830 |
| H-2* | 2740 | 2435 |
| I-1 | 3615 | 4480 |
| I-2* | 1845 | 1565 |
| J-1 | 805 | 690 |
| J-2* | 990 | 700 |
| K | 4455 | 3735 |
| L-1 | 985 | 1980 |
| L-2 | 3935 | 3700 |
| M | 5 | 5 |
| N | 0 | 310 |
| O* | 1645 | 1635 |
| P-1* | 1150 | 1180 |
| P-2* | 1925 | 1745 |
| Totals | 47,275 | 43,075 |

* Asterisk denotes neighborhoods outside of Cupertino Sphere of Influence as defined by LAFCO in 1978. The 1977 population of said neighborhoods was 12,105.

ENVIRONMENTAL RESOURCES

5-32

Table 5-F illustrates the product of the multiplication. The table identifies the existing park inventory and identifies the future deficiency or surplus of park space both in numerical and percentage terms for each neighborhood sub-unit. As evidenced by the plus or the deficiency column, the majority of neighborhood units within town do not have an adequate supply of park space.

TABLE 5-F

NEIGHBORHOOD PARK LAND NEED ANALYSIS FOR 1990 URBAN SERVICE AREA POPULATION

| Neighborhood Park Service Areas | 1990 Population | 1990 Neighborhood Park Land Need (Based upon 3 acres/ 1000 Population) | 1990 Park Supply Status Based Upon 1977 Inventory | | | |
|---------------------------------|-----------------|--|---|-------------------------------|---------------------------------|--|
| | | | 1977 Inventory | Surplus or Deficiency Numeric | Surplus or Deficiency % of Need | |
| A-1 and E-1 | 3520 | 10.6 | Varian Park 3.2 | - 4.3 | 59% | |
| A-2, B, and C | 7270 | 21.8 | Linda Vista 11.0 ¹ | -10.8 | 50% | |
| E-2 | 4215 | 12.6 | Monta Vista 4.2 | - 8.4 | 33% | |
| F-1 | 590 | 1.8 | | - 1.8 | 0% | |
| F-2 | 3370 | 16.7 | Memorial 22.2 | + 5.5 | 133% | |
| G | 720 | 2.2 | Somerset 2.7 | - 0.5 | 11% | |
| H-1 and H-2 | 265 | 12.0 | Jolleyman 3.2 | - 9.0 | 25% | |
| I-1 and I-2 | 6045 | 18.0 | Wilson 5.2 | -12.8 | 29% | |
| J-1, J-2 and K | 5125 | 15.4 | Rancho ² 1.9 | -13.5 | 12% | |
| L-1 | 1980 | 5.9 | | - 5.9 | 0% | |
| L-2 | 3700 | 11.1 | Portal 4.1 | - 7.0 | 37% | |
| N | 510 | 1.5 | | - 1.5 | 0% | |
| O | 1635 | 4.9 | | - 4.9 | 0% | |
| P-1 | 1180 | 3.5 | Three Oaks 5.1 | + 1.9 | 154% | |
| P-2 | 1745 | 5.2 | | - 5.2 | 0% | |
| Totals | 43,075 | 144.4 | 66.8 | | | |

Note 1: A large proportion of park site is unusable because of terrain.

Note 2: Rancho Rinconada Recreation District

The degree of accessibility is a major consideration in the neighborhood park concept. Figure 5-I identifies the 1/2 mile service area radius for existing neighborhood parks. The shaded service areas reflect physical barriers which prohibit access, such as freeways, railroad tracks or streambeds. However, service areas in the diagram do not reflect high volume traffic arterials that may discourage accessibility to certain individuals, particularly younger age children. It is doubtful for example that parents would allow pre-school children to cross De Anza Boulevard or Stevens Creek Boulevard unattended to access a

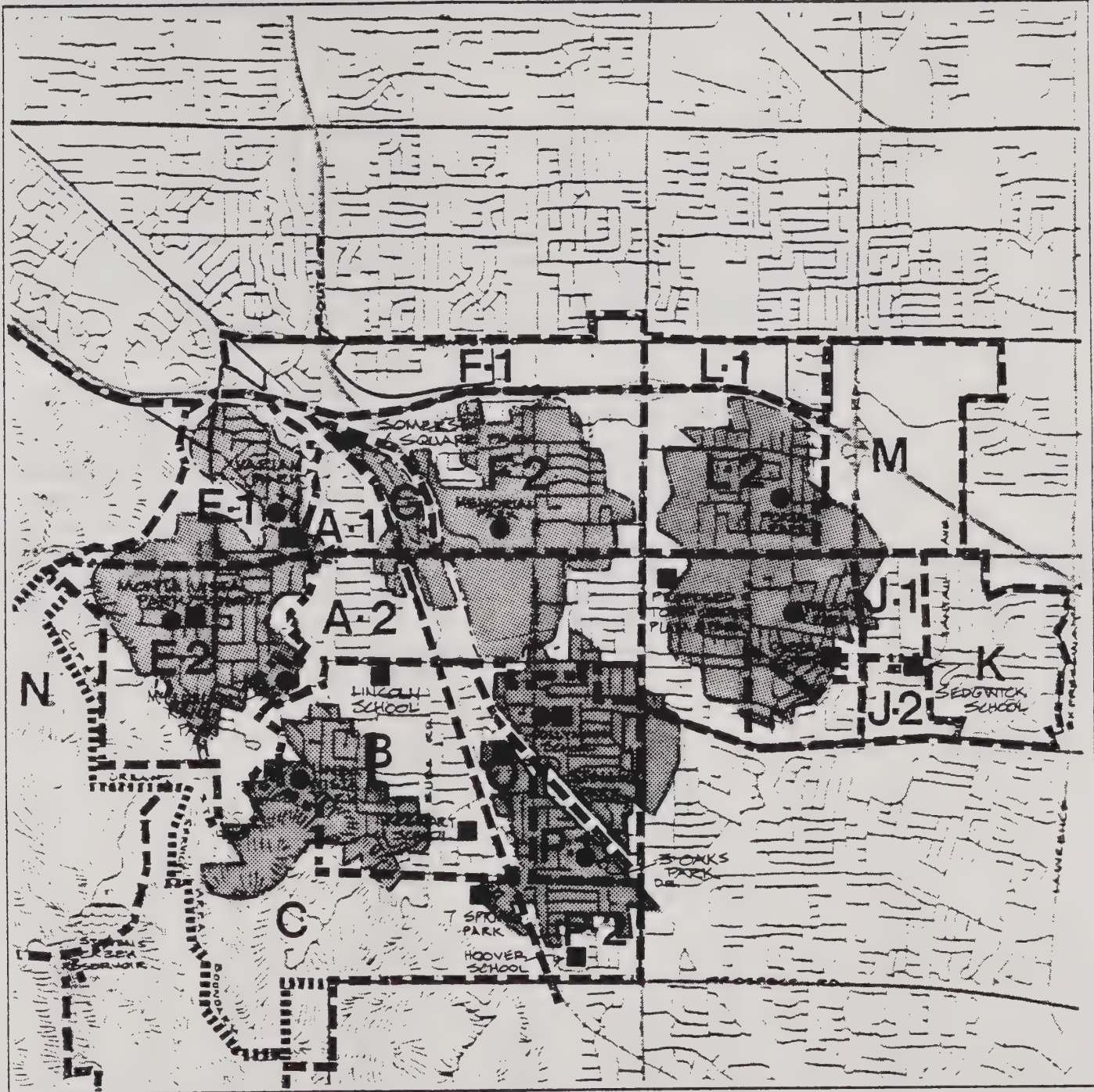


FIGURE 5-1

1977 PARK ACCESS STATUS



URBAN SERVICE BOUNDARY



1/2 MILE ACCESS RANGE FROM
PARK SITES



neighborhood park site.

Implementation

The City will not have the financial resources to acquire adequate supply of park land to meet the 3 acres per 1,000 standard for each sub-neighborhood. The park land acquisition program delineated by Table 5-H and Figure 5-J outlines an acquisition strategy that stretches limited financial resources by taking advantage of existing school sites, by expanding existing park sites, and taking advantage of park dedication requirements for major new developments, as in the case of Seven Springs Ranch and the Town Center.

The Cupertino School District has developed a review process to evaluate the closing of schools as a result of declining enrollment. Since Cupertino citizens depend upon local neighborhood schools as a source of open space and to a limited degree as space for organized group play activities. The General Plan strategy is to acquire key school sites as they become available in deficient neighborhoods. Table 5-G is an inventory of existing school sites within the community. The third column of the chart identifies the potential for closure of school sites. The fourth column on Table 5-H identifies school sites that the City is contemplating acquiring for park purposes should the listed school be declared surplus.

Table 5-G

School Site Inventory
(Elementary, Junior High and High School)

| Neighborhood Service Area | School Sites | Operational Status and Type (see code below) | Total Acres | Usable Acres |
|---------------------------------|------------------|--|----------------|-----------------|
| A-1 and E-1 | Stevens Creek | XXX/E. | 10.0 | 5.3 |
| A-2, B and C | Lincoln | XXX/E. | 10.0 | 4.6 |
| | Kennedy | XXXX/J.H. | 25.0 | 14.2 |
| | Reynart | XXX/E. | 9.5 | 6.2 |
| | Monta Vista | XXXX/S.H. | 29.2 | 15.8 |
| E-2 | Monta Vista | X/E. | 9.7 | 3.6 |
| F-1 | No School Sites | | | |
| F-2 | Garden Gate | XXXX/E. | 10.0 | 4.6 |
| C | No School Sites | | | |
| H-1 and H-2 | Faria | XXXX/F. | 9.5 | 5.4 |
| | Jollman | XXX/E. | 10.5 | 7.9 |
| I-1 and I-2 | Wilson | X/E. | 10.0 | 7.1 |
| | Eaton | XXX/E. | 10.0 | 7.8 |
| | Older | XXX/E. | 13.0 | 6.1 |
| J-1, J-2 and K | Sedgwick | X/E. | 8.8 | 4.5 |
| | Dovle | XXX/E. | 9.3 | 5.8 |
| | Hyde | XXXX/J.H. | 14.5 | 9.5 |
| | Cupertino | XXXX/S.H. | 31.0 | 16.0 |
| L-1 | No School Sites | | | |
| L-2 | Portal/Nan Allen | XXXX/E. | 11.0 | 4.8 |
| | Collins | XXX/J.H. | 17.9 | 6.5 |
| N | No School Sites | | | |
| O | No School Sites | | | |
| F-1 | No School Sites | | | |
| F-2 | Hoover | XXX/E. | 10.8 | 6.5 |
| Totals | | | 259.7 | 144.20 |

Official Status Codes

XXXX Closure unlikely.
 XXX Closure possible.
 XX Closure likely.
 X Closed to general enrollment, site to remain in inventory for specialized use.
 X Closed, site to be sold.

TABLE 5-H
PROPOSED PARK LAND ACQUISITION PROGRAM

| Neighborhood Park Service Areas | 1990 Neighborhood Park Land Need (Based upon 3 acres/ 1000 Population) | 1990 Park Supply Status Base Upon 1977 Inv. and Proposed Acquisitions | | | | | | New Acquisition | |
|------------------------------------|---|--|---|--------------------|-----------------------|-------------------------|----------------------------------|----------------------------|--|
| | | 1977 Park Inventory | Proposed Acquisition | Park Land Total | Surplus of Numeric | Deficiency % of Need | Priority Code | Probable Funding Source | |
| A-1 and E-1 | 10.6 | Varian Park 6.3 | Varian Exp. 2.3 | 8.6 | - 2.0 | 81% | M, 1, 2, 4 | A, F, G | |
| A-2, B, and C | 21.8 | Linda Vista 11.0 ¹ | Lincoln School 3.5 7 - Springs 3.5 Regnart School 3.5 | 21.5 | - .3 | 98% | M, 3, 4 M, 1, 2, 4 M, 3, 4 | A & B B & E A & B | |
| E-2 | 12.6 | Monta Vista 4.2 | Monta Vista Exp. 2.0 | 6.2 | - 6.4 | 49% | H, 3, 4 M, 1, 2, 4 | A & B A, B, F | |
| F-1 | 1.8 | 0 | 0 | 0 | - 1.8 | 0% | | | |
| F-2 | 16.7 | Memorial 22.2 | 0 | 22.2 | + 5.5 | 133% | H, 1, 4 | A & B | |
| G | 2.2 | Somerset 1.7 | 0 | 1.7 | - .5 | 77% | | | |
| H-1 and H-2 | 12.0 | Jollyman 3.2 | Jollyman Exp. 1.5 | 4.7 | - 8.1 | 37% | L, 3, 4 | A & B | |
| I-1 and I-2 | 18.0 | Wilson 5.2 | Town Center or } 3.5 Eaton School } Older School 3.5 | 12.2 | - 5.8 | 68% | H, 1, 2, 4 L, 3 | A, B, C A, B, F | |
| J-1, J-2 and K | 15.8 | Rancho* 1.9 | Sedgwick School 3.5 | 5.4 | -10.4 | 34% | M, 3, 4 | A & B | |
| L-1 | 5.9 | 0 | 0 | 0 | - 5.9 | 0% | | | |
| L-2 | 11.1 | Portal 4.1 | Surplus property from Portal School 2.7 | 6.8 | - 4.3 | 61% | | | |
| N | 1.5 | 0 | 0 | 0 | - 1.5 | 0% | | | |
| O | 4.9 | 0 | Stelling Park 3.5 | 3.5 | - 1.4 | 71% | M, 1, 2, 4 | A, B, D, E, F | |
| P-1 | 3.5 | Three Oaks 5.1 | (sell 1.5 acres) 3.6 | 3.6 | + .1 | 103% | | | |
| P-2 | 5.2 | 0 | Hoover School 3.5 | 3.5 | - 1.7 | 67% | M, 3, 4 | A & B | |
| Totals | 144.4 | 64.9 | | | | -44.5 | | | |

1. A large segment of park site is unusable because of terrain.

Priority Code: Rationale for Expenditure Priority

- | | |
|-----------|---|
| H: High | 1. Private development pressure. |
| M: Medium | 2. Leverage of public or private development. |
| L: Low | 3. Sale or lease of school sites. |
| | 4. Area of greatest deficiency. |

Funding Service Code:

- | |
|---|
| A. General Fund. |
| B. Parl. dedication. |
| C. Federal and State grants or RCD. |
| D. Proceeds from surplus park land. |
| E. Park land negotiations from Williamson |

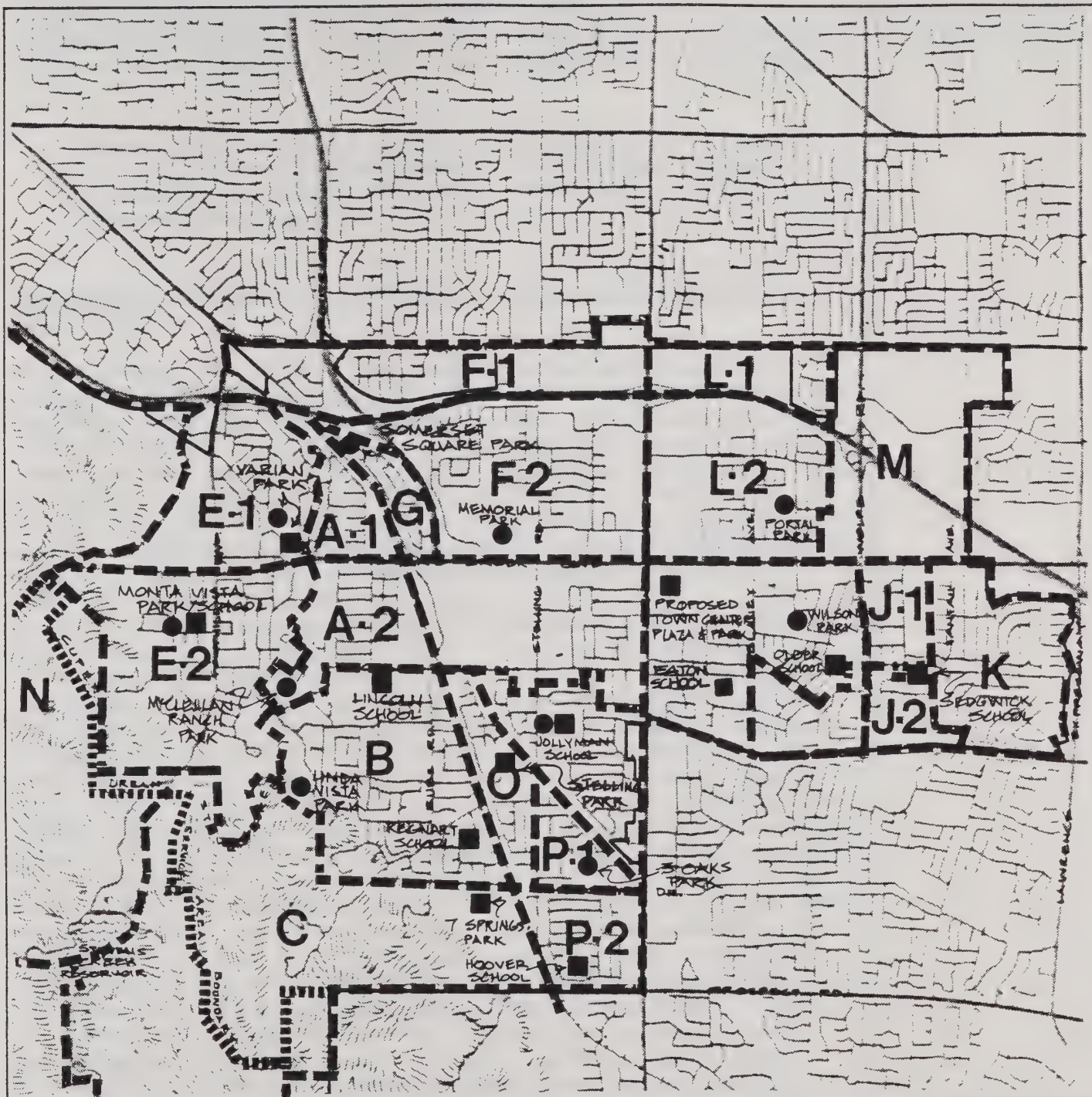


FIGURE 5-J.
PROPOSED ACQUISITION PROGRAM

- EXISTING PARK SITE
- PROPOSED ACQUISITION OR EXPANSION



Surplus school sites not listed on Table 5-H will not be considered for purchase by the City for neighborhood park purposes.

Policy 5-32: Table 5-H is the City of Cupertino's neighborhood park acquisition program. Funding and timing priorities are contained in the current Capital Improvement Program.

Explanation of the Priority Code and Funding Code Described on Table 5-H

The Priority Code for the new acquisition column attempts to provide a frame of reference for park land acquisition over time. Because of the dual land pressures related to the housing demand within the West Valley and the ironic decrease in school enrollment, the City may soon be placed in a position of having to make acquisition decisions. Therefore, the Priority Code labeled "High", "Medium" and "Low" relates to the degree to which the staff projects development pressure to be placed on the proposed park acquisition sites. Numerical designations 1 through 4 describe the rationale for the timing priority. The term "private development pressure" relates to projected residential development of key park sites. The term "leverage of public or private development" relates to the need to expend money in conjunction with either private or public development projects. For example, it may be wise to acquire park land next to a flood control district project which involves land acquisition. In this manner, park dollars can be leveraged with public improvements. The "sale or lease of school sites" term is self-explanatory. The citizen's committee advising the Cupertino Elementary School District will soon be making recommendations for the closure of sites to take place over the next five years. That information will enable the City to make adjustments on the Priority Code within the near future. The "area of greatest deficiency" term relates to park acquisitions that best satisfy the space objectives and access objectives of the parks program. For example, the City should acquire land within areas of greatest need first. However, the key priority is to ensure that lands are not preempted for other uses. Another consideration in the priority scheme relates to expenditure of money within County pockets. It may be advisable to delay, as long as possible, the acquisition of land within a County pocket until such time as it becomes clear that annexation is probable. The importance of County versus City jurisdiction is less important since property tax has become less significant as a means to support parks programs.

The funding source code descriptions are as follows:

A. General Fund - The General Fund source relates to moneys collected through property tax, sales tax and other sources that are not designated for a specific activity.

B. Park Dedication - Park Dedication fees are collected in conjunction with residential subdivision activity. As a general

rule, Park Dedication fees should be expended within the neighborhood in which they were collected.

C. Federal/State Grants - The City has utilized and hopefully will continue to utilize Federal and State grants to augment its efforts to acquire parks and construct facilities. The City has utilized moneys from the State Bond Act of 1974 and 1976, State Urban Open Space moneys, a Department of Housing and Urban Development grant for the McClellan Ranch Park, and the Housing and Community Development Act.

D. Proceeds from surplus park land sales - In a few instances, where the park land need is exceeded within a given neighborhood, or where an existing park design is awkward, some land may be sold to a residential developer with the proceeds used to acquire land in a neighborhood with deficient park land area.

E. Proceeds from Negotiation of Williamson Act Contracts - Individuals under Williamson Act contract may request their contract be rescinded subject to a tax penalty. It is suggested that the City negotiate with owners to waive tax penalties if land is made available for park or open space purposes.

F. Other Agency Participation - As in the past, the City will work with the Santa Clara Valley Flood Control District, school districts, the MidPeninsula Regional Open Space District and other entities to jointly acquire land for park purposes.

G. Voluntary Dedication or Gift - In some cases, the City is offered a dedication of park land in conjunction with a development or a particular owner may want to bequeath land to the jurisdiction. In another instance, owners may wish to dedicate land to the City with the understanding that they be given a life estate lease hold on their property.

The primary purpose of new acquisition priority codes and probable funding source codes is to illustrate that there are monetary constraints in implementing the plan and therefore the program should be prioritized.

Expenditure of Funds for Development and Construction of Facilities

In view of limited monetary resources and continued pressure for closure of school sites, priority should be placed on land acquisition as opposed to park development. Limiting turfing may occur on park sites dependent upon future funding levels. The City is currently constructing a senior center in Memorial Park. No new additional community facilities are anticipated within the next five years. The City will continue to utilize school district facilities to conduct its teen drop-in program and other recreation programs. If the Lincoln School site is programmed

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for disposal by the School District, the City may want to place a higher priority on acquisition of the site to take advantage of an excellent multi-purpose room.

6

PUBLIC HEALTH & SAFETY

Introduction

The purpose of the Public Health and Safety Element is to develop mechanisms to ensure that living and working environments in the community are reasonably free from unhealthy and hazardous conditions. The Element identifies potential hazards to life and property from natural phenomenon such as earthquakes, rainstorms causing flooding, wildfires and landslides. The Element also identifies potential hazards resulting from the carelessness of man, such as urban fires, or failure of man-made water storage facilities; and more subtle hazards such as long-term exposure to excessive noise levels, or criminal behavior as a result of poor land planning and building design.

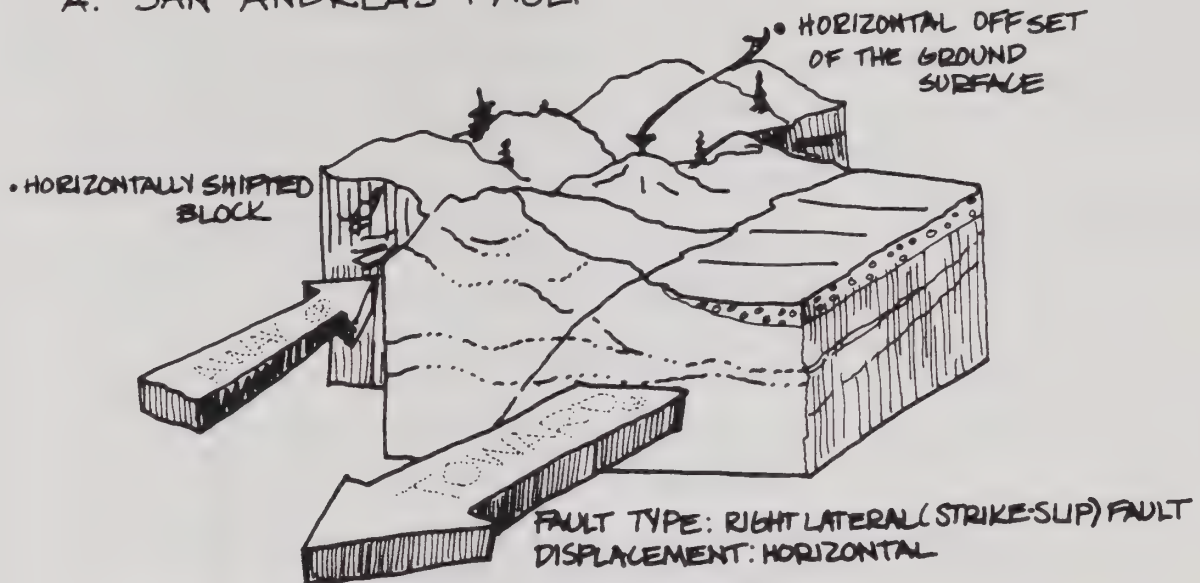
There is no such thing as a risk-free environment. One of the key objectives of the Public Health and Safety Element of the Plan is to identify an acceptable level of risk relative to the identified hazards. The Element attempts to answer the question, "How safe is safe enough?". Identifying acceptable level of risk or exposure to hazards involves subjectivity. While it would be ideal to adopt a very conservative position of eliminating the greatest degree of risk possible, local government must attempt to establish realistic standards within the economic and social constraints of contemporary living.

Seismic and Geologic Hazard

The City of Cupertino is located in a region of very high seismic activity. The mountainous and lower foothill's geographical areas of the City's planning area are transversed by the San Andreas and its two splinter faults, the Sargent-Berrocal and Monta Vista fault systems. The San Andreas fault is classified as a "lateral system", meaning that the movement occurs along a shear point that is perpendicular to the earth's axis. The Sargent-Berrocal and the Monta Vista fault systems are classified as "thrust" faults, meaning that movement occurs vertically as opposed to horizontally. Figure 6-A illustrates the two categories of fault displacement. The San Andreas and Sargent-Berrocal fault systems are located in the mountainous region of the planning area. The Monta Vista fault, however, follows the transition line between the valley floor and the hillsides where urban development has taken place. The Monta Vista fault is labeled as a potentially active fault meaning that it has not ruptured within the past 11,000 years. However, the potential always exists for ground rupture and therefore must be considered when reviewing urban development.

The ground shaking intensity posed by earthquake seismic activity represents the greatest hazard. Earthquake intensity is measured by two scales: The Richter Magnitude, a measurement of the total energy of an earthquake as determined by a Seismograph (an instrument to record vibrations of the earth), and The Modified Mercalli Intensity Scale, an objectively-developed system to measure the intensity of an earthquake based upon assessment of damage and personal reaction to an earthquake. Table 6-A identifies the general comparison between earthquake magnitude (Richter Scale) and personal assessment of earthquake affects (Mercalli's

A. SAN ANDREAS FAULT



B. SARGENT - BERROLAL FAULT

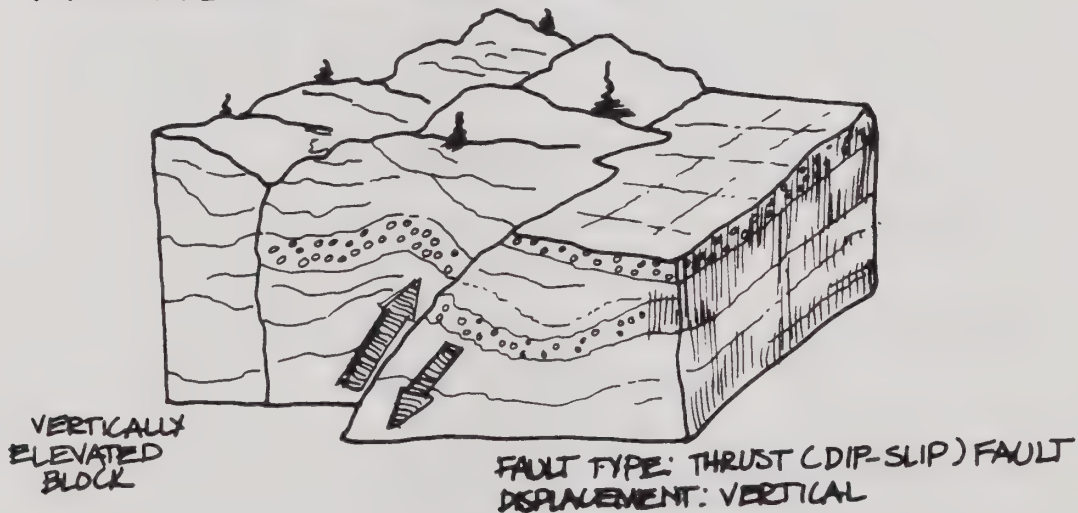


FIGURE 6-A

BLOCK DIAGRAMS EXHIBITING FAULTS WITHIN THE CUPERTINO PLANNING AREA CHARACTERIZED BY HORIZONTAL (A) & VERTICAL (B) DISPLACEMENTS



Table 6-A

GENERAL COMPARISON BETWEEN EARTHQUAKE MAGNITUDE AND THE EARTHQUAKE EFFECTS DUE TO GROUND SHAKING

| EARTHQUAKE CATEGORY | RICHTER MAG. | MODIFIED MERCALLI INTENSITY SCALE* (After Housner, 1970) | DAMAGE TO STRUCTURE |
|------------------------|-----------------|---|------------------------------|
| | | I - Detected only by sensitive instruments | |
| | 2.0 | II - Felt by few persons at rest, especially on upper floors; delicate suspended objects may swing. | |
| | 3.0 | III - Felt noticeably indoors, but not always recognized as an earthquake; standing cars rock slightly, vibration like passing truck. | No Damage |
| Minor | 4.0 | IV - Felt indoors by many, outdoors by a few; at night some awaken; dishes, windows, doors disturbed; cars rock noticeably. | |
| | 5.0 | V - Felt by most people; some breakage of dishes, windows and plaster; disturbance of tall objects. | Architec- tural Damage |
| | 6.0 | VI - Felt by all; many are frightened and run outdoors; falling plaster and chimneys; damage small. | |
| 5.3 | 7.0 | VII - Everybody runs outdoors. Damage to buildings varies, depending on quality of construction; noticed by drivers of cars. | |
| Moderate | 8.0 | VIII - Panel walls thrown out of frames; fall of walls, monuments, chimneys; sand and mud ejected; drivers of cars disturbed. | |
| 6.9 | 9.0 | IX - Buildings shifted off foundations, cracked, thrown out of plumb; ground cracked, underground pipes broken; serious damage to reservoirs and embankments. | Structual Damage |
| Major | 10.0 | X - Most masonry and frame structures destroyed; ground cracked; rails bent slightly; landslides. | |
| 7.7 | 11.0 | XI - Few structures remain standing; bridges destroyed; fissures in ground; pipes broken; landslides; rails bent. | |
| Great | 12.0 | XII - Damage total; waves seen on ground surface; lines of sight and level distorted; objects thrown into the air; large rock masses displaced. | Total Destruction |

*The intensity is a subjective measure of the effect of the ground shaking, and is not an engineering measure of the ground acceleration.

PUBLIC HEALTH & SAFETY

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Scale) as a result of seismic activity.

A "maximum probable" earthquake on the San Andreas and Monta Vista faults could result in considerable damage depending upon a number of factors related to distance and the bedrock/alluvial conditions of a particular site or area. Figures 6-B and 6-C describe the hypothetical earthquake intensities for a "maximum" earthquake on San Andreas and Monta Vista faults. The intensity ratings must be considered general; site-specific conditions such proximity to streambeds and specific soils conditions may heighten or decrease the intensity.

Earthquake Probability

"Reoccurrence intervals", or the time necessary for maximum probable earthquakes to repeat themselves on a given fault, are approximations that are based upon present and historic activity, the amount of displacement of rock formations along the fault tract of difference geologic ages, and the amount of strain accumulation presently measured across it. Estimates of reoccurrence intervals on "potentially active faults" such as the Sargent-Berrocal/Monta Vista are even less accurate than the estimate for active faults such as the San Andreas fault system.

Table 6-B provides an estimate of the maximum earthquake magnitude and an estimated reoccurrence interval of maximum probable earthquakes for fault systems that directly affect Cupertino. There is insufficient data, however, to estimate probable reoccurrence of a maximum event on the Sargent-Berrocal and Monta Vista faults. The estimate of reoccurrence interval of the San Andreas fault is 50 to 200 years. The last maximum event on the San Andreas fault was in 1906 or 73 years ago. Each year that passes without a maximum event means that there is a statistically higher percentage of an event occurring within any year.

Table 6-B
ACTIVE AND POTENTIALLY ACTIVE FAULTS AND THEIR EARTHQUAKE CHARACTERISTICS

| | Causative Faults | Distance from Intersection of De Anza and Stevens Creek Blvds. | Maximum Historical Earthquake Magnitude (Richter Magnitude) | Maximum Probable Earthquake Magnitude (Richter Magnitude) (1) | Est. Recurrence Lateral of Max. Prob. Earthquakes (2) |
|--------------------|------------------|--|---|---|---|
| San Andreas System | San Andreas | 5½ miles | 8.3 (Last event: 1906) | 8.3 | 50-100 years |
| | Hayward | 10 miles | 7.0+ (Last event: 1868) | 7.0 | 10-100 years |
| | Calaveras | 14 miles | 6.0+ | 7.0 | 10-100 years |
| Sargent-Berrocal | Berrocal | 3½ miles | 3.7 to 5.0 | 6.5 to 7.0(3) | Data Insufficient for estimating |

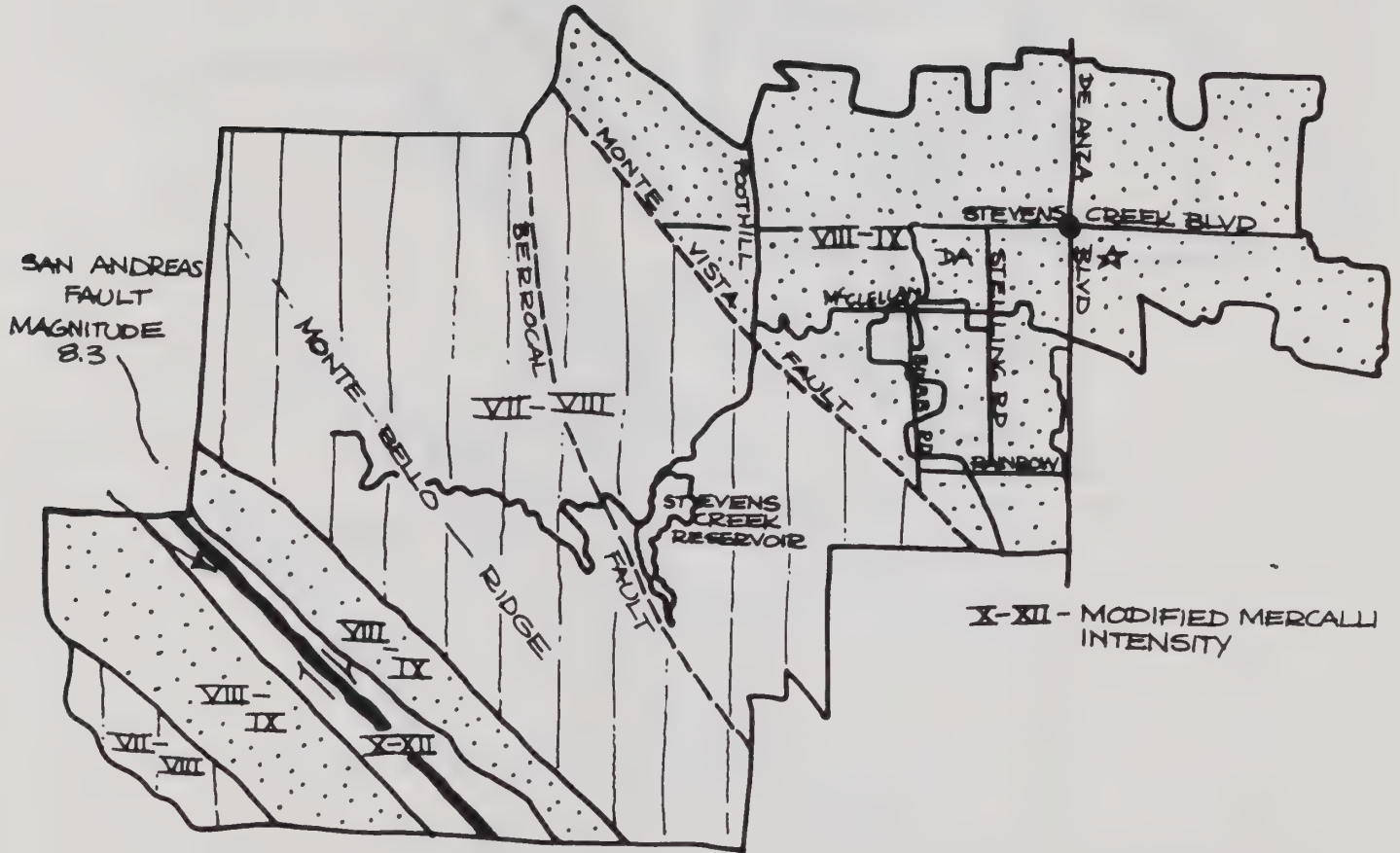


FIGURE 6-B

APPARENT INTENSITY MAP OF THE CUPERTINO PLANNING AREAS,
SAN FRANCISCO EARTHQUAKE OF 1906.

(MODIFIED AFTER ALGERMISSSEN, 1972; AND BORCHERT, ET AL, 1975)



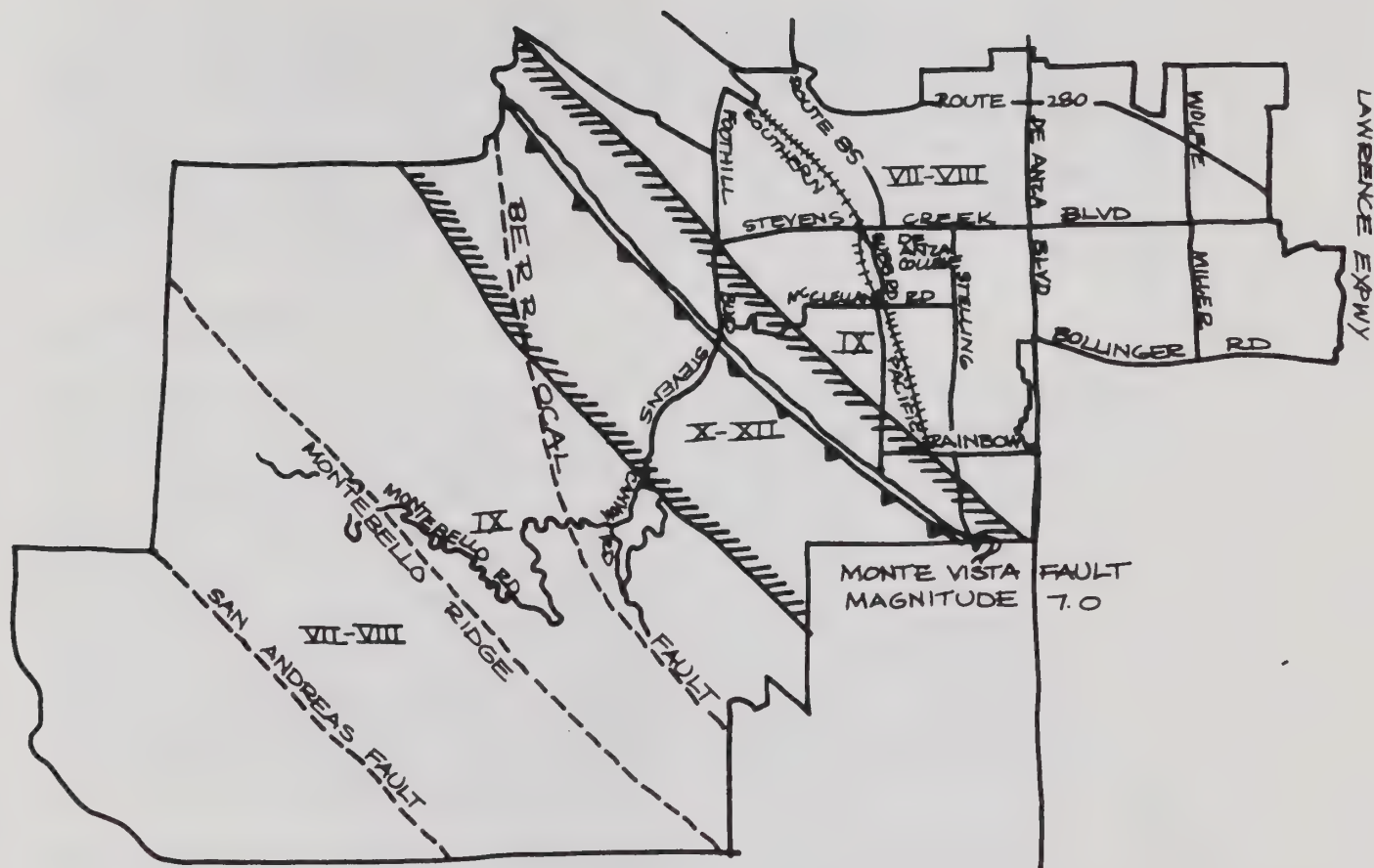


FIGURE 6-C

HYPOTHETICAL INTENSITY MAP FOR A MAXIMUM PROBABLE EARTHQUAKE ON THE MONTA VISTA FAULT.



The City of Cupertino is divided into 13 geologic/seismic hazard zones. The seismic and geologic hazards map labeled Figure 6-D and the accompanying Table 6-C identifies the location of the zones and describes the specific hazards that could be expected to occur within each zone. The hazard map and accompanying table will be used to determine which future development projects will have to undergo geologic review, and the degree of detail that must be contained within each review.

Geologic Hazards

The greatest geologic hazard to the foothills and low mountainous regions of the planning area is landslide. Landslide activity includes the downward and upward movement of natural earth materials. The sliding of a slope is a normal geologic process by which slopes are flattened and valleys become wider. The rate of downslope movement ranges from very rapid (i.e. rock falls) to very slow (i.e. soil creep and bedrock creep). Landsliding is caused by a variety of inter-related natural factors such as weak soil and rock over steepened hillsides due to rapid stream erosion, adverse geologic structure, ground water and high rainfall rates. Improper grading, excessive irrigation, removal of natural vegetation and altering surface and sub-surface drainage can all act to initiate landslides.

Figure 6-E identifies landslide deposits within the Cupertino study area. Geologic mapping in the hillsides by the U. S. Geological Survey (Sorg & McLaughlin, 1974) and the California Division of Mines and Geology (Rogers & Armstrong, 1974) indicates that landslide deposits of various size and activity cover as much as 20 to 30% of the hillside portion of the planning area. Landslides range from small, rather shallow deposits comprised of soil and weak bedrock materials to large deep landslides involving large amounts of bedrock materials.

Quantitative assessment of the long-term stability of a landslide deposit is nearly impossible. Old landslide deposits are the most difficult to judge for overall stability. Experience also indicates that under average conditions, areas previously involved in landsliding are far more likely to move again than are areas previously undisturbed by landsliding. Likewise, areas within these old deposits that are adjacent to steep, newly entrenched stream canyons are more likely to be affected by renewed landsliding than areas located some distance from these new steep-walled channels. This would be especially true with severe seismic shaking during a large magnitude earthquake on either the San Andreas, Berrocal or Monta Vista faults. The historic account of the 1906 earthquake cites numerous examples of seismically induced landslides scattered throughout the Santa Cruz Mountains. Some of these failures were catastrophic events resulting in severe structural damage, personal injury and loss of life (Lawson, 1908).

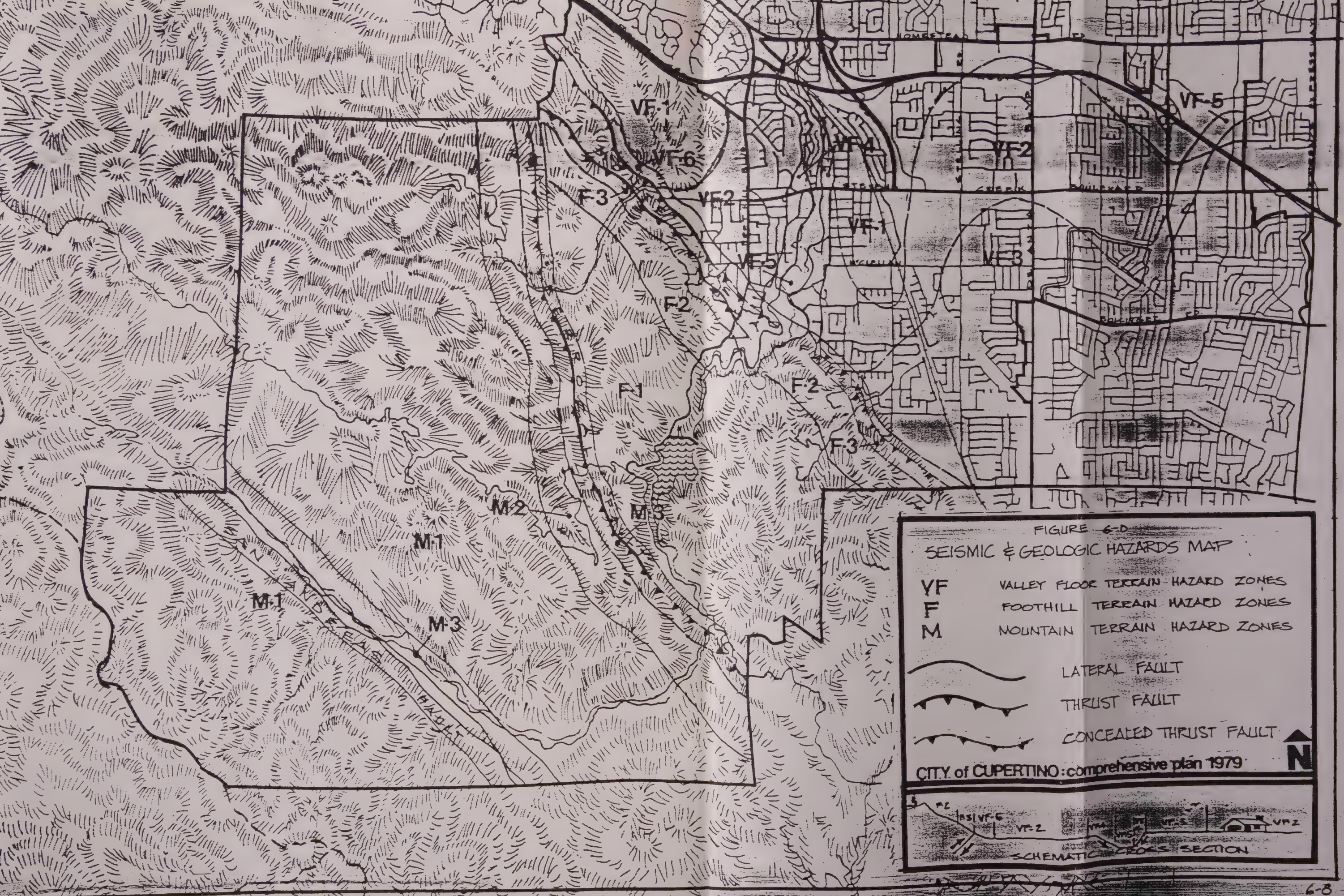


FIGURE 6-D

SEISMIC & GEOLOGIC HAZARDS MAP

| | |
|----|-----------------------------------|
| VF | VALLEY FLOOR TERRAIN HAZARD ZONES |
| F | FOOTHILL TERRAIN HAZARD ZONES |
| M | MOUNTAIN TERRAIN HAZARD ZONES |

| | |
|--|------------------------|
| | LATERAL FAULT |
| | THRUST FAULT |
| | CONCEALED THRUST FAULT |

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Table 6-C

EXPLANATIONS: GEOLOGIC AND SEISMIC HAZARDS MAPS OF THE CUPERTINO PLANNING AREA

| GEOLOGIC TERRANE UNIT | GENERAL GEOLOGIC-SEISMIC HAZARDS WITHIN TERRANE UNIT | HAZARD ZONE MAP SYMBOL | SPECIFIC GEOLOGIC-SEISMIC HAZARD TO BE CONSIDERED WITHIN EACH HAZARD ZONE |
|---|---|------------------------|--|
| VALLEY FLOOR - Nearly flat, urbanized valley floor; steep walls of Stevens Creek Canyon; low rolling foothills area near St. Josephs Seminars and Monta Vista substation. | <u>GROUND SHAKING</u> - Moderate to locally severe VIII to IX intensity for maximum probable earthquake (8.3M) on the San Andreas Fault. X to XII intensity expected within 1000 ft. and intensities of VII to VIII at distances greater than 1000 ft. from a maximum probable event (7.0M) on the Monta Vista Fault. | VF - 1/2/3 | - Ground Shaking - Ground Failure - Ground Rupture (Monta Vista Fault) - Flood Inundation (Calabazas Creek) |
| | <u>GROUND FAILURE</u> - Moderate to high landslide potential along the steep canyon walls of Stevens Creek; moderate to high potential for lateral spreading and ground lurching along Stevens Creek Canyon walls, <u>liquefaction</u> potential is considered to be low to moderate. | VF - 4 | - Ground Shaking - Ground Failure (landsliding, lurching, lateral spreading) |
| | <u>GROUND RUPTURE</u> - Moderate potential along and within 300 ft. of the trace of the Monta Vista Fault. | VF - 5 | - Ground Shaking - Ground Failure (liquefaction) - Flood Inundation - Ground Rupture (Monta Vista Fault) |
| | <u>FLOOD INUNDATION</u> - Moderate to high potential along Stevens Creek under seismic or non-seismic conditions and along Calabazas Creek under non-seismic conditions. | VF - 6 | - Ground Shaking - Ground Rupture |
| FOOTHILLS - Gentle to steep, partially urbanized hillside area located west of the Valley Floor and generally east of Montebello Ridge. | <u>GROUND SHAKING</u> - Moderate to locally severe VII to VIII intensities due to maximum probable earthquake (8.3M) on the San Andreas Fault; X-XII intensities within 2000 ft. from the Monta Vista Fault for a maximum probable earthquake (7.0M). | F - 1 | FOOTHILL TERRACE UNIT - Ground Shaking - Ground Failure (landsliding) |
| | <u>GROUND FAILURE</u> - Moderate to high landslide potential under seismic and non-seismic conditions in hillside areas with slopes steeper than 15%; ground <u>lurching</u> and <u>fracturing</u> expected within 2000 ft. west of the trace of the Monta Vista Fault during a maximum probable earthquake. | F - 2 | - Ground Shaking - Ground Rupture - Ground Failure |
| | <u>GROUND RUPTURE</u> - Moderate potential along and within 300 ft. east and within 600 ft. west of the traces of the Monta Vista Fault and the Berrocal Fault. | F - 3 | - Ground Shaking - Ground Rupture - Ground Failure |
| | <u>FLOOD INUNDATION</u> - Moderate to high potential along Stevens Creek under non-seismic (same as VF-5) as well as seismic condition. | F - 4 | - Ground Shaking - Ground Failure - Flood Inundation |
| | <u>GROUND SHAKING</u> - Moderate to locally severe X to XII intensities along the San Andreas Fault due to a maximum probable earthquake (8.3M); X to XII intensities expected within 2000 ft. from the Berrocal Fault for a maximum probable earthquake (7.0M). | M - 1 | MOUNTAIN TERRANE UNIT - Ground Shaking - Ground Failure (landsliding) |
| | <u>GROUND FAILURE</u> - Moderate to high landslide potential under seismic and non-seismic conditions in hillside areas with slopes steeper than 15%; ground <u>lurching</u> and <u>fracturing</u> expected within 2000 ft. west of the Berrocal Fault and the San Andreas Fault. | M - 2 | - Ground Shaking - Ground Failure (lurching, fracturing) |
| MOUNTAINS - Moderate to steep hillside areas of Montebello Ridge and Santa Cruz Mountains. | <u>GROUND RUPTURE</u> - High potential within 600 ft. of the trace of the San Andreas Fault; moderate potential 600 ft. west of the trace of the Berrocal Fault. | M - 3 | - Ground Shaking - Ground Rupture - Ground Failure |

* The specific type of technical investigation should conform to the details described in The Guidelines for Geotechnical Investigation and conditions expressed in the Geotechnical Review Procedure, City of Cupertino.

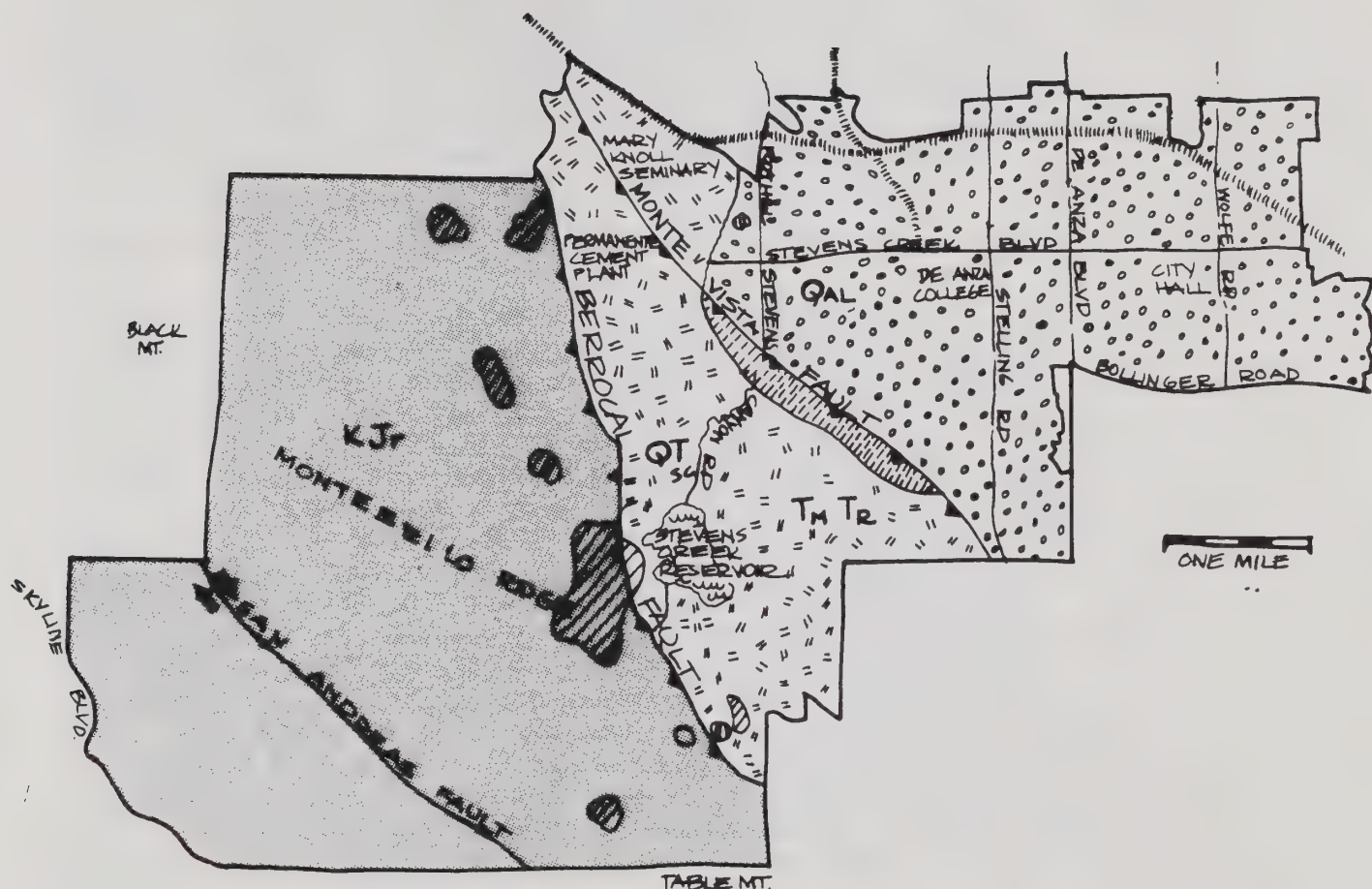







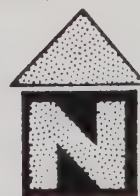


FIGURE 6-E

-  QAL - VALLEY FLOOR ALLUVIUM
-  QT_{sc} - SANTA CLARA FORMATION
-  T_m, T_r - TERTIARY SEDIMENTARY ROCKS
-  KJ_r - FRANCISCAN ASSEMBLAGE
-  LANDSLIDES
-  THRUST FAULT
-  STRIKE-SLIP FAULT



Landslide activity in the valley floor is anticipated along the higher portions of Stevens Creek embankments. These areas are confined to local sites along the entrenched stream canyon extending from the front of the hillside region across the valley floor terrain unit. The hazard imposed by failure of stream embankments can be reduced significantly by restricting construction activities at the base and top of unstable embankments.

Acceptable Level of Risk

The assignment of an acceptable level of risk for seismic and geologic hazards must relate to the appropriateness of land use and building design standards commensurate with the degree of hazard associated with specific geologic and seismic conditions of the zone in which a proposed project is to be located. Table 6-D was reproduced from a report prepared by the State of California Joint Committee for Seismic Safety. The table identifies an acceptable level of risk for seven land use categories. The table describes four levels of acceptable risk ranging from extremely low to ordinary. The middle column labeled "Land Use Group" relates risk assignment to land use activities. "Extremely low risk category", for example, is assigned to highly critical structures such as a large dam and vital public utility facilities. Conversely, an ordinary risk category is assigned to low and moderate occupancy buildings such as single-family residences, warehouses and farm structures. The third column describes the possible additional cost associated with measures to reduce risk and more importantly, generally identifies the level of protection for life and property.

Land use activities within the extremely low category must be designed to achieve maximum attainable safety. For example, Stevens Creek Reservoir must be designed to remain totally functional if subjected to ground shaking caused by a maximum probable event on fault systems within the planning area. There is no set percentage of cost associated with structural safety improvements since those improvements must be made at any cost. On the other hand, various activities in the "ordinary" level of risk is estimated to result in a 1 to 2 percent cost over-ride to provide the desired level of safety.

Figure 6-F identifies critical facilities that must remain intact following a maximum probable earthquake on either the San Andreas Sargent-Berrocal or Monta Vista fault systems. Most of these facilities are owned and managed by private utility companies or other public agencies that are beyond the direct control of the City of Cupertino. The purpose of the critical facility map is to ensure that public officials and private entities are aware of the need to evaluate their facilities within the Planning Area in terms of their potential for disruption of service or potential hazard to Cupertino citizens. Cupertino City Hall, for example, functions as one of the communication centers for natural

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Figure 6-K

PUBLIC HEALTH & SAFETY

Table 6-D

| Acceptable exposure to Risk Related to Various Land Uses | | |
|---|--|---|
| Land uses and structural types are arranged below according to the level of exposure to acceptable risk appropriate to each group; i.e. the lowest level of exposure to acceptable risk should be allowed for Group 1 and the highest level of exposure to acceptable risk for Group 7. | | |
| Level of Acceptable Exposure to Risk | Land Use Group | Extra Project Cost Probably Required to Reduce Risk to an Acceptable Level |
| Extremely Low | Group 1: Vulnerable structures, the failure of which might be catastrophic such as nuclear reactors, large dams, and plants manufacturing or storing explosives or toxic materials. | No set percentage (whatever is required for maximum attainable safety). |
| | Group 2 Vital public utility facilities, such as electric transmission interties (500 KV), network ties (230 KV), and substations, regional water supply distribution facilities, such as aqueducts and valley pipelines, treatment plants and pumping stations, and gas transmission mains. | The structure shall be designed to remain functional following a maximum projected earthquake on local fault systems. |
| Low | Group 3 Major communication and transportation facilities, such as airports, telephone lines and terminals, bridges, tunnels, freeways and overpasses, and evacuation routes. | 5 to 25 percent of project cost. |
| | Water retention structures such as small dams and levees. | Structures shall be designed to remain functional following a maximum probable earthquake on local fault systems. |
| | Emergency facilities, such as hospitals, fire and police stations, ambulance services, post-earthquake aid stations, schools, City Hall, De Anza College and convalescent homes | |
| | Group 4 Involuntary occupancy facilities, such as convalescent and nursing homes, schools and prisons. | |
| Moderately Low | High occupancy buildings, such as theaters, arenas. Large office buildings and hotels, and large apartment buildings or complexes. | |
| | Group 5 Public utility facilities, such as metropolitan feeder electric transmission routes (60 and 115 KV), water supply turnout lines, and sewage lines. | 5 to 15 percent of project cost. |
| | Facilities which are of major importance to the local economy | Structures shall be designed to give reasonable assurance of preventing injury or loss of life during a maximum probable earthquake on local fault systems. The structure need not be designed to remain functional. |
| Ordinary Risk Level | Group 6 Minor transportation facilities, such as arterials and parkways. | 1 to 2 percent of project cost in most cases (2 to 10 percent of project costs in a minority of cases). |
| | Low to moderate occupancy buildings, such as single-family residences, small apartment buildings, motels and small commercial/office/professional light industrial buildings. | |
| | Group 7 Very low occupancy building such as warehouses, storage areas, and farm structures. | Structures shall be designed to resist minor earthquakes, without damage, resist moderate earthquakes without structural damage, but some non-structural damage, resist major earthquakes (maximum probable for local fault systems) without collapse but with some structural and non-structural damage. |
| | Open space and recreation areas, farm lands, sanitary land fills and wildlife areas. | |

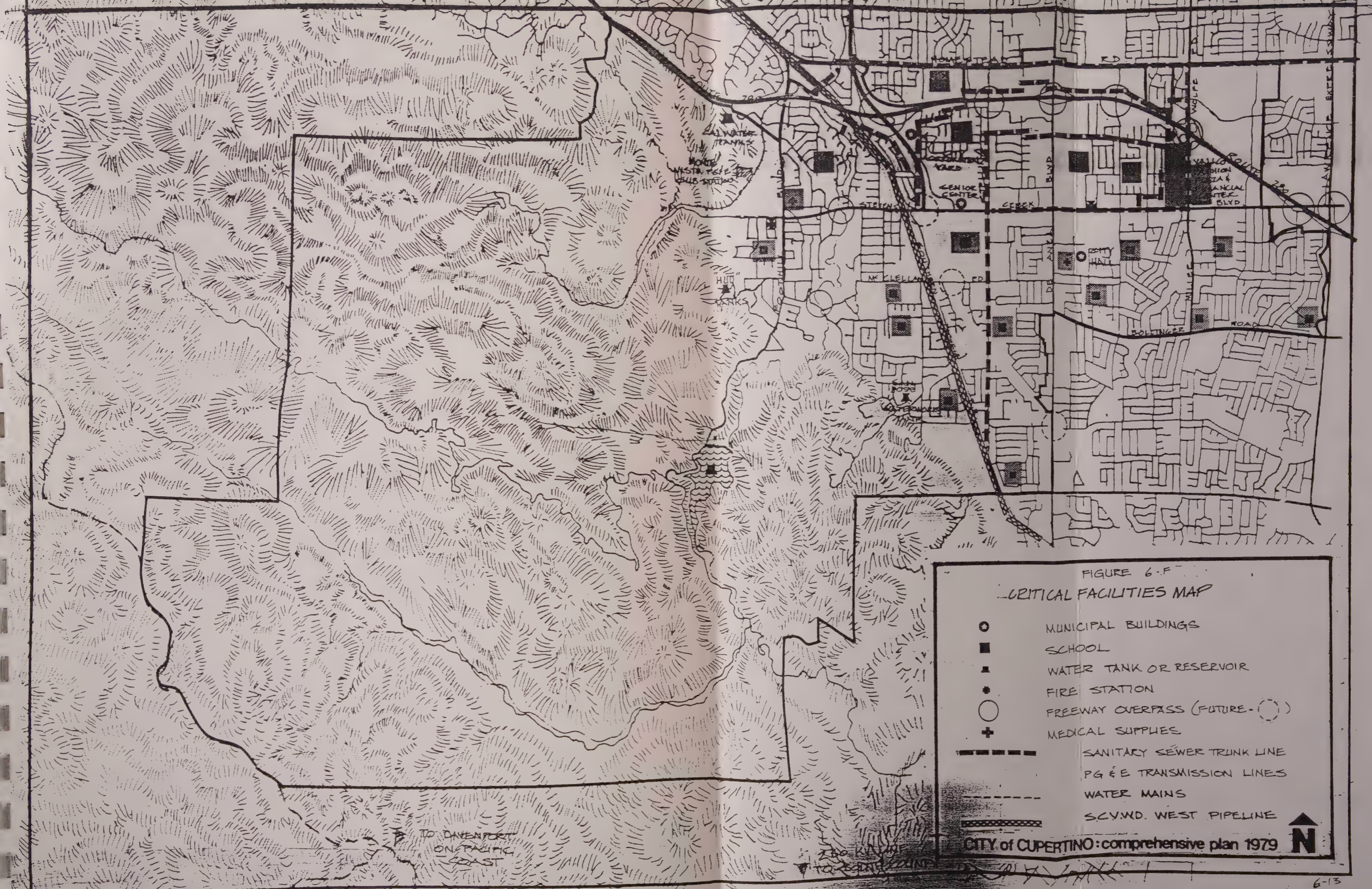
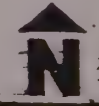


FIGURE 6-F
CRITICAL FACILITIES MAP

- MUNICIPAL BUILDINGS
- SCHOOL
- ▲ WATER TANK OR RESERVOIR
- FIRE STATION
- FREEWAY OVERPASS (FUTURE - ○)
- ✚ MEDICAL SUPPLIES
- SANITARY SEWER TRUNK LINE
- PG & E TRANSMISSION LINES
- WATER MAINS
- SCVWD. WEST PIPELINE

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disasters including seismic events and therefore, will play a major role in coordinating emergency service. Additionally, the City is responsible to ensure that critical elements of the municipal water system are designed to withstand a maximum earthquake so as to remain functional for fire fighting purposes and domestic water.

Table 6-E represents a policy position regarding the degree of technical evaluation required to ensure that hazards for new development are reduced to an acceptable level based on various land use types. Critical facilities located within the Planning Area should be evaluated and, if necessary, structurally modified to withstand a maximum earthquake.

Table 6-E

TECHNICAL INVESTIGATIONS REQUIRED TO DESIGN STRUCTURES BASED UPON
ACCEPTABLE LEVEL OF RISK FOR VARIOUS LAND USE ACTIVITIES

| VF 1 2 3 4* 5 6 | | | | F 1 2 3 4 M 1 2 3 | |
|---|--|--|--|---|--|
| Land Use Activity Groups 1-4 | UBC Soils Seismic Hazard | | | UBC Soils Seismic Hazard Geology | |
| Land Use Activity Groups 5-7 | UBC Soils | | | UBC Soils Geology | |
| <u>Description of Technical Evaluation:</u> | | | | | |
| UBC: | 1976 Edition of Uniform Building Code. | | | | |
| Soils: | A soils and foundation investigation to determine ability of local soil conditions to support structures. | | | | |
| Geology: | The preparation of a detailed study to determine sub-surface structure to analyze fault potential, ground water conditions, and slope stability. | | | | |
| Seismic Hazard: | A more detailed soils and structural evaluation of a proposed Group 1-4 development. The study should certify that the normal earthquake regulations of the Uniform Building Code are adequate or, if not, should recommend more stringent requirements. | | | | |
| * | Geologic review is required in Valley Floor Hazard Zone 4 to evaluate high potential for slope instability, lateral spreading, and ground lurching. | | | | |

POLICY RECOMMENDATIONS

The policy recommendation section of this element of the plan identifies specific actions that the City should take to reduce the risk of injury or property loss as a result of seismic and geologic activity.

The greatest opportunity for preventing future injuries and property loss from seismic and geologic activities exists in the area of regulating new development. While it is difficult to retrofit old development to reduce risks, the City in cooperation with the private development sector has the opportunity to locate and design structures in a manner to reasonably reduce risks.

Policy 6-1: A seismic/geologic review process should be formally adopted and utilized to evaluate new development proposals in all areas of the community.

Strategy No. 1: The "acceptable level of risk" (Table 6-D) shall be utilized as a means of identifying an acceptable level of exposure to risk for land use types. The table provides general structural design criteria for each land use group to minimize risk.

Strategy No. 2: Table 6-E of the Seismic Safety Background Report shall be used to determine the necessary geotechnical and structural analysis based upon the relationship of a proposed land use activity to its location within a specific hazard zone.

Strategy No. 3: The City shall give a high priority to the incorporation of additional and most recent earthquake resistant design techniques into the building design and structural engineering process.

Strategy No. 4: The City shall upgrade residential construction standards to reduce earthquake damage to non-engineered construction. The upgraded construction standards shall be limited to minor construction techniques and components which do not significantly raise the cost of construction. Additional bracing for garage openings of two-story and split-level homes and increased first story bracing in multi-family residences located over automobile parking are specific examples of minor upgraded standards.

Strategy No. 5: The City shall adopt a geotechnical review procedure which incorporates geotechnical concerns into the development review process.

Addressing seismic safety concerns relative to the existing environment is more difficult to deal with. In most cases, it is not practical to retrofit buildings to incorporate revised seismic safety standards. Fortunately, the "built" environment of Cupertino is new and, therefore, most structures within the City were built according to a building code which incorporates structural components and designs to resist ground shaking. Nevertheless, Group 1 through 4 structures identified as "critical facilities" should be re-evaluated, particularly those structures located in the high hazard zones identified on the geologic hazards zone map. Many agencies have completed, or are in the process of conducting, a seismic safety evaluation of their facilities. For example, local school districts throughout the State have evaluated and modified their structures to resist ground shaking. All of the school facilities within the City of Cupertino comply with the legally-mandated standards.

The Santa Clara Valley Water District recently completed an evaluation of the safety of Stevens Creek Reservoir. Based on the construction technique used to build the dam (hydraulic fill) and the proximity of the Berrocal and Monta Vista faults, the district determined that the risk factor was too great to allow the dam to continue to impound water pending completion of additional safety review of the facility. In still another example, the State Department of Transportation is conducting an evaluation of

freeway overcrossing structures throughout the State to determine their resistance to ground shaking.

Policy 6-2: The City shall conduct an evaluation of its own facilities described within the Critical Facilities Map and will encourage other private and public agencies within its planning area to conduct evaluations of critical facilities to reduce risks consistent with Table 6-D.

Strategy No. 1: A structural engineer should be retained to evaluate the City Hall Emergency Operating Center and the structures housing the City's emergency equipment. The engineer shall make design recommendations, if necessary, to ensure that this structure will remain functional following a maximum probable earthquake on the San Andreas, Sargent-Berrocal and Monta Vista faults.

It is not economically feasible for the public or private sector to conduct an evaluation of non-critical facilities listed for land use activity Groups 5 through 7 on Table 6-E. The City government should, however, initiate an educational effort to enable residents, industrial employers and businessmen to protect their property and reduce risk of injury.

Policy 6-3: The City should initiate an educational program informing residents of means to reduce seismic related hazards.

Strategy No. 1: The City should continue its program of requiring developers to record a covenant informing future residents in high risk areas that a seismic risk is present and that certain information is available within City Hall records. The above requirement is in addition to the State requirement of recording information regarding the geological report on the face of a subdivision map document.

Flood Hazard
Policy 6-13
page 6-35

Strategy No. 2: The City should publish a general informational flyer to be submitted in conjunction with the Cupertino Scene outlining a series of simple, yet effective, steps that homeowners and businessmen can take to minimize risks associated with earthquakes. Examples are tying down gas appliances to reduce toppling and subsequent fires, install an appropriate tool adjacent to gas turn-off valves, describing safe locations within structures to gather during an earthquake, a recommendation that periodic drills be held with family members, and advising residents to maintain minimal first-aid supplies, food and drinking water.

Strategy No. 3: The City should activate the emergency operating center as quickly as possible to provide the focal point for communications in needed time of emergency.

Fire Hazard

Cupertino residents and properties are located in a number of environmental settings, each of which has a varying degree of exposure to fire hazard. The greatest degree of fire risk exposure is borne by residents and property owners within the foothill and mountainous regions of the planning area which is located outside of the City's corporate limits. While the City does not have a direct involvement in public safety aspects of fire hazard within this mountain region, fire safety within Montebello Ridge and Stevens Canyon area does affect the community directly. Major fires would decrease the effectiveness of the Stevens Creek Watershed, would cause siltation of downstream portions of the streambeds thereby increasing flooding potential, and would diminish recreation opportunities.

DEGREE OF HAZARD WITHIN THE FOOTHILL AND MOUNTAINOUS AREA

The California Division of Forestry utilizes a fire hazard classification system to identify severity of potential fire within the foothills. The system is based upon three natural factors. The natural factors relate to vegetative cover or fuel factor, the degree of slope, and critical fire weather. The degree of hazard to life and property is affected not only by the naturally hazardous condition but also the degree of road access for residents to evacuate a fire area, the number of fire suppression personnel able to respond to the fire, the degree of availability of water to suppress fire, and the effectiveness of building codes and follow-through inspection of developments in fire hazard areas. Figure 6-G is a composite map identifying the degree of hazard for life and property within the mountainous and foothill region. The legend of the map describes the fire hazard

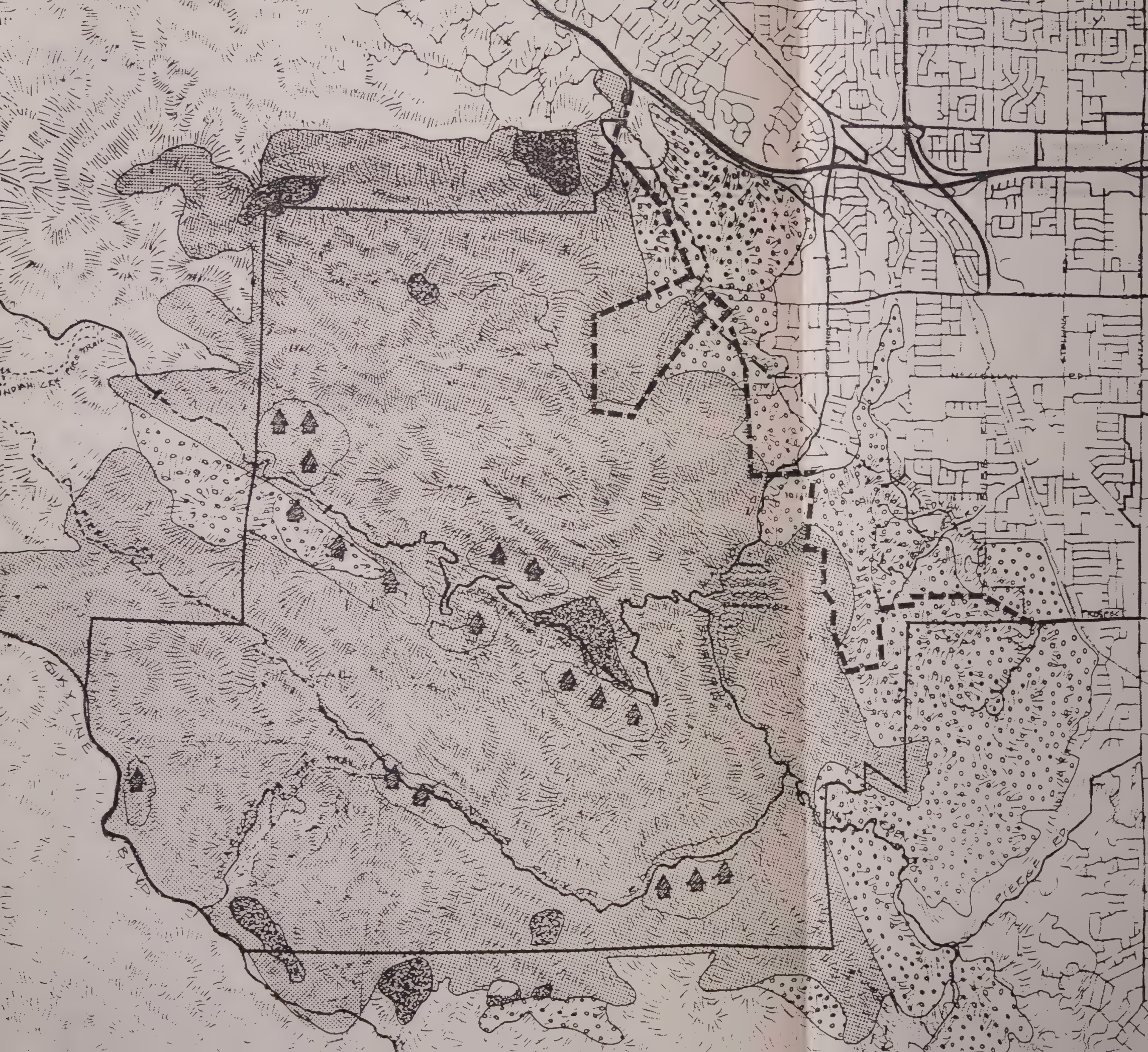


FIGURE 6-6 FIRE HAZARD MAP

FIRE HAZARD SEVERITY

VEGETATIVE RESOURCES

| | |
|---------------------------|-----|
| 1) COULTER PINES | X3 |
| 2) SALT PONDS | N/A |
| 3) SALT MARSH | N/A |
| 4) GRASSLAND | X1 |
| 5) PINE FOREST | X3 |
| 6) WOODLAND/GRASS | X2 |
| 7) REDWOOD | X3 |
| 8) CHAPARRAL | X2 |
| 9) HARDWOOD/WOODLAND | X2 |
| 10) PLANTATION | X1 |
| 11) RIPARIAN | X3 |
| 12) AGRICULTURAL-URBAN | N/A |
| 13) STREAM | X2 |
| 14) AGRICULTURE | X1 |
| 15) URBAN DEVELOPMENT | X1 |
| 16) NON-URBAN RESIDENTIAL | X3 |

| FUEL SEVERITY FACTOR | SLOPE CLASSIFICATION |
|-------------------------|----------------------|
| 1) LIGHT (<2.2T/ac.) X1 | 1) 0-40% X1.0 |
| 2) MED. (=17.3T/ac.) X8 | 2) 41-60% X1.6 |
| 3) HEAVY (>37T/ac.) X16 | 3) 61%+ X2.0 |

CRITICAL FIRE WEATHER

| | |
|---|----|
| 1) LESS THAN 1 DAY OF F.L.I. 28 OR MORE | X1 |
| 2) 1-9.5 DAYS OF F.L.I. OR MORE | X2 |
| 3) 9.6+ DAYS OF F.L.I. OR MORE | X8 |

NOTES:
 (1421) NUMERICAL CODING -14=VEG. RES.
 2=CRIT. FIRE WEATHER
 1=SLOPE CLASS.

(1-128) MODERATE HAZARD
 (16-32) HIGH HAZARD
 (51.2-256) EXTREME HAZARD

HAZARDOUS FIRE AREA LINE ADOPTED BY
 CITY OF CUPERTINO JULY 2, 1974

SOURCE: SANTA CLARA COUNTY PLANNING DEPARTMENT

- GENERAL DEFINITION OF DEVELOPED AREAS
- PUBLIC ALL-WEATHER ROAD
- FIRE ACCESS TRAIL
- HAZARDOUS FIRE AREA BOUNDARY DEFINED BY UNIFORM FIRE CODE
- URBAN SERVICE BOUNDARY

severity matrix utilized by the California Division of Forestry and outlines the location of road systems within the location and the schematic location of development.

There are approximately 16 square miles of land area within the mountainous section of the Cupertino planning area. The number of existing dwellings in the mountainous region is estimated at approximately 100 and based upon the application of the Santa Clara R-20 zoning regulations, the estimated maximum potential number of households within the planning area ranges between 112 and 190 dwellings. Thus, relative to the land area involved, the exposure to fire hazard is limited to a relatively small number of households.

A very large portion of the land within the mountainous region is publicly owned either by the MidPeninsula Regional Open Space District or the Santa Clara County Parks System. The human exposure to fire risk can be quite extensive during certain peak periods of the year when the park systems are fully utilized.

Road Access

The hillside road system is illustrated on Figure 6-G. The public road access is obviously severely limited. The road access problem is compounded by a decision by the Santa Clara County Board of Supervisors to eliminate an emergency road access planning program approximately five years ago. At the present time, individual property owners are requested to act independently or form groups to maintain existing fire access roads. The implementation of the more restrictive zoning patterns has restricted development to the degree that it is not feasible to expand previously planned fire road to form linkages. The above conditions have been assessed by Santa Clara County in conjunction with this Public Safety Element. The County lists the Montebello Road/Stevens Canyon area as the fourth highest fire risk area within the County of Santa Clara.

Figure 6-G also identifies existing fire trails. There is a fire trail that links Montebello Road and the Palo Alto Sphere of Influence to the bottom of Stevens Canyon. A quarter mile gap in the fire trail system is being considered for extension by the MidPeninsula Regional Open Space District to facilitate patrol activities. The District is working with the California Department of Fish and Game to gain approval, to improve and reconstruct the former fire trail, and to provide continuity of access. There is a fire trail that extends from Skyline Boulevard through Charcoal Road thence down to Stevens Canyon. There are segments of that road that are not paved and are extremely steep (over 20%) and therefore would not be passable by standard passenger vehicles.

The road accessibility problem within developing areas of the lower foothills within the City's Urban Service Area is less serious. The City has instituted a policy of requiring an all weather surface private emergency access connection between public streets within Lindy Canyon and Regnart Canyon. The system of public streets and private fire access roadways will be :

extended within the Kaiser property located north of Stevens Creek and in the Inspiration Heights area should that area develop. The public roadway and private fire access system is defined on Figure 6-G.

Water Supply on Montebello Ridge and Stevens Canyon

There are no private or public water systems within the Montebello Road and Stevens Canyon area. The County Land Development Committee requires each homesite to be served by a 5,000 gallon tank. It is theoretically possible to have jointly owned and operated water storage systems. It is possible to reduce the total unit gallonage as long as there is an adequate water main distribution for all homes sharing the joint facility. The Santa Clara County Public Safety Element references a County Fire Chief's Association recommendation for a minimal water storage requirement of 10,000 gallons for a structure over 1,600 sq. ft. located in a remote fire hazard area. The County Public Safety Element has an adopted policy position suggesting that the County's land development regulations include that standard. At the present time, there is no apparent support for increasing the tank standard nor is there any commitment of County resources to ensure that the minimal 5,000 gallon tanks are periodically inspected.

Water Supply for Foothill Regions within the Urban Service Area

By definition, all development within the Urban Service Area will be served by a water system that complies with City standards relative to the supply of water for domestic and fire flow purposes. In the short term, a few developed areas within the Urban Service Area have an inadequate water system. Examples are existing lots within the upper reach of Regnart Canyon and a few areas within the Inspiration Heights planning area. In the long term, these areas will receive better fire flow as the City's municipal water system expands in conjunction with new development and capital improvements programming.

Building Codes

The City of Cupertino and County of Santa Clara utilize a Uniform Fire Code and designate appropriate areas of each jurisdiction as Hazardous Fire Areas. The fire codes regulate the types of materials that are suitable within a hazardous fire environment and regulate the proximity of combustible vegetation to a structure. The County Fire Marshal and Central Fire District have the authority to regulate activities within designated fire hazard areas including the extreme position of closing an area to the public. Neither the City nor the County have an effective inspection program to ensure that the Uniform Fire Code regulations are continually obeyed. Funding limitations may eventually require individuals living within rural fire areas to police their own property and in consort with neighbors monitor activities of their

neighbors that may jeopardize their property because of carelessness.

FIRE HAZARDS ON THE URBANIZED VALLEY FLOOR

Life and property within the City of Cupertino is protected by a well managed fire protection service. Buildings within the City are relatively new; the City has a strong code enforcement program, and has adequate water service. Therefore, while there is always a risk of fire in any urban environment, Cupertino citizens/property owners are not subject to unusually high fire hazard. The above conclusion notwithstanding, there is room for improvement relative to the reduction of fire hazard in specific geographical areas. Fire risk in an urban setting is based upon building characteristics including construction techniques, materials and heights, the degree of accessibility measured in distance and time from fire suppression men and equipment and upon the availability of water.

Relationship of Building Design and Materials to Fire Risk

The City utilizes the Uniform Fire Code and Uniform Building Code to regulate building construction and site planning in a manner to minimize fire hazards. In regard to the Uniform Building Code, all area within the City's corporate limits are designated a fire zone 3 which is the least restrictive of the three fire zones and yet is one that is commonly utilized by suburban communities in which the majority of buildings are built with modern standards and buildings are separated reducing the risk of fire spreading from one structure to another. The Fire Zone 1 category which is the most restrictive zone is generally applied to central business district areas in older communities. Large commercial and industrial buildings in Cupertino are designed to separate large areas thereby eliminating the spreading of fire. The City requires automatic sprinkler systems and fire detection systems which additionally reduce risks.

The City of Cupertino and the Central Fire District conduct periodic inspections of commercial and industrial properties to ensure that fire regulations are followed. The City does not, however, require that single-family homes be inspected to ensure that appropriate code sections are maintained. The City does require that smoke alarms be installed on new structures and had considered the possibility of requiring the smoke detectors and warning devices in older homes in conjunction with the transfer of property.

Accessibility

Generally speaking, an ideal service area for a fire station is a 1 1/2 mile radius. More specifically, a large concentration of commercial and industrial buildings may require an ideal 3/4 mile radius and conversely one and two family dwellings located in a very rural environment may permit a radius of up to 3 and 4 miles

or more. Figure 6-H identifies the 3/4, 1 1/2 and 2 miles distance isobars from three central fire district stations and the Rainbow-Blaney Avenue station within the City of San Jose. Distance isobars from the fire station is an indicator of potential response time for fire agencies. The actual response time may vary between areas depending upon levels of traffic congestion and other impediments. For the purpose of this element, the ideal service area lines are used to access the relative degree of accessibility to various areas within the community.

Since one of the primary objectives of emergency fire services is to reduce response time, the City's policy of discouraging through commute traffic through neighborhoods may result in implementation programs that curtail accessibility. Additionally, private security systems for planned residential communities may include impediments to access and must be carefully evaluated.

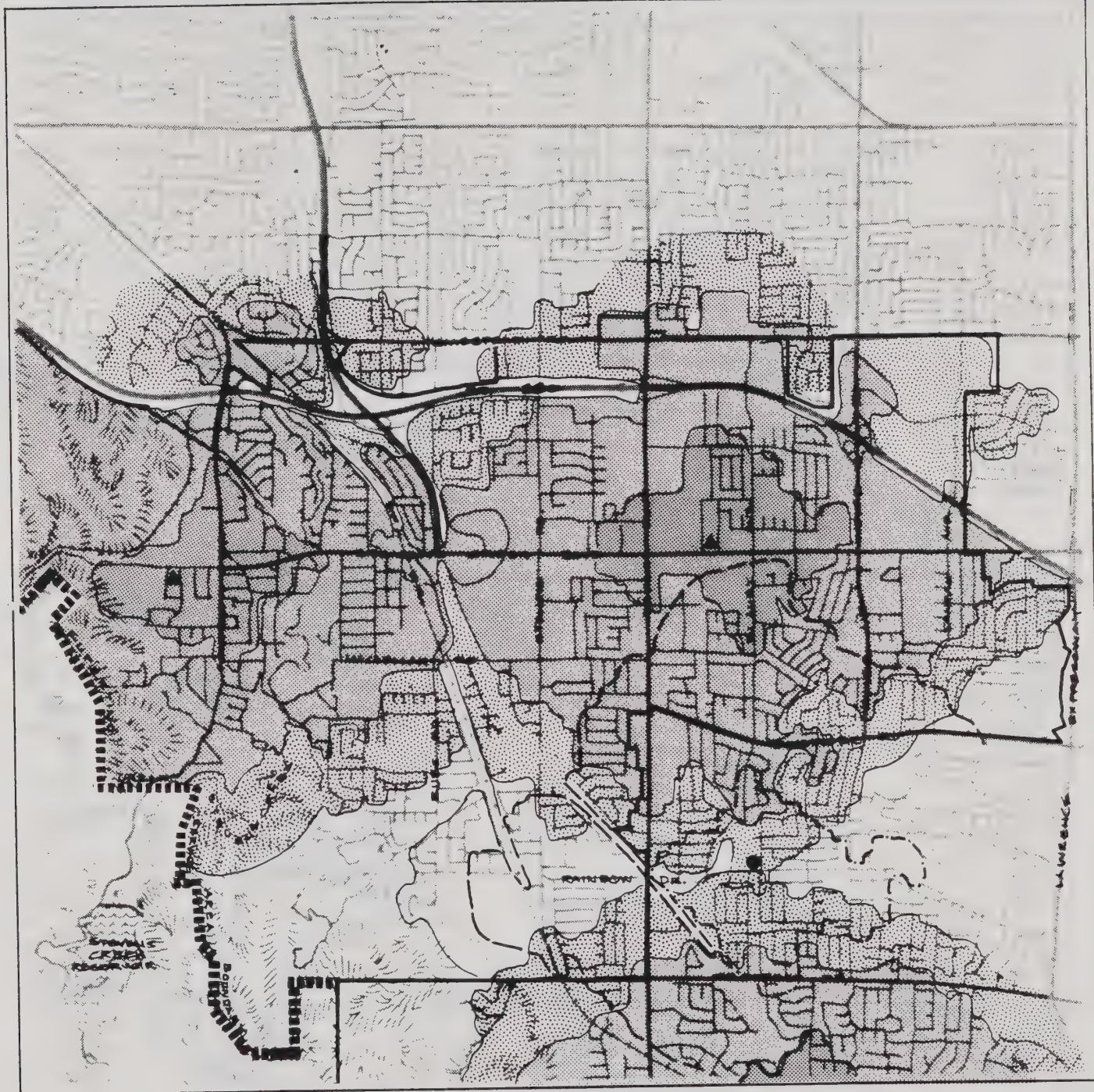
Water Supply

The adequacy of water supply has great affect upon the ability of the fire protection agency to suppress fires. Figure 6-I describes private and public water systems that serve the community. The San Jose Water Works and California Water Service distribution systems supply the relatively new areas of the community and accordingly, the water lines and distribution systems are adequate to meet both domestic and fire flow needs of the community. Although the systems meet today's needs under the franchise agreement with the City of Cupertino and other agreements with fire protection agencies, neither private water system is required to maintain adequate fire flows. The Central Fire District and the City of Cupertino administrative staffs are investigating the possibility of new legislation, if needed, that would require minimum fire flow capabilities be maintained by municipal water service providers within the community.

The City of Cupertino's domestic water system was acquired in 1960. The initial system consisted of old distribution lines and pumping facilities. The water utility has modernized lines primarily through new development. There are areas within the community that must be upgraded to meet minimum fire flow requirements. Figure 6-I identifies deficiencies within the present system that should be corrected.

DEFINITION OF ACCEPTABLE LEVEL OF RISK

The definition of acceptable level of risk is based upon the degree to which economic resources are allocated to protect individuals and property from fire. To a large extent, the insurance rating system can be used as a quantitative means of defining acceptable level of risk. Fire insurance rates paid by property owners and renters in Cupertino is based upon the American Insurance Administration grading schedule which evaluates a number of factors that relate to fire hazard. Table 6-F identifies the



FIRE SERVICE AREA BOUNDARIES



SANTA CLARA COUNTY CENTRAL FIRE STATION

3/4 MILE SERVICE AREA

1 1/2 MILES SERVICE AREA

2 MILES SERVICE AREA

CITY OF SAN JOSÉ FIRE STATION

3/4 MILE SERVICE AREA BOUNDARY

1 1/2 MILES SERVICE AREA BOUNDARY

FIGURE 6-H

CITY of CUPERTINO · comprehensive plan



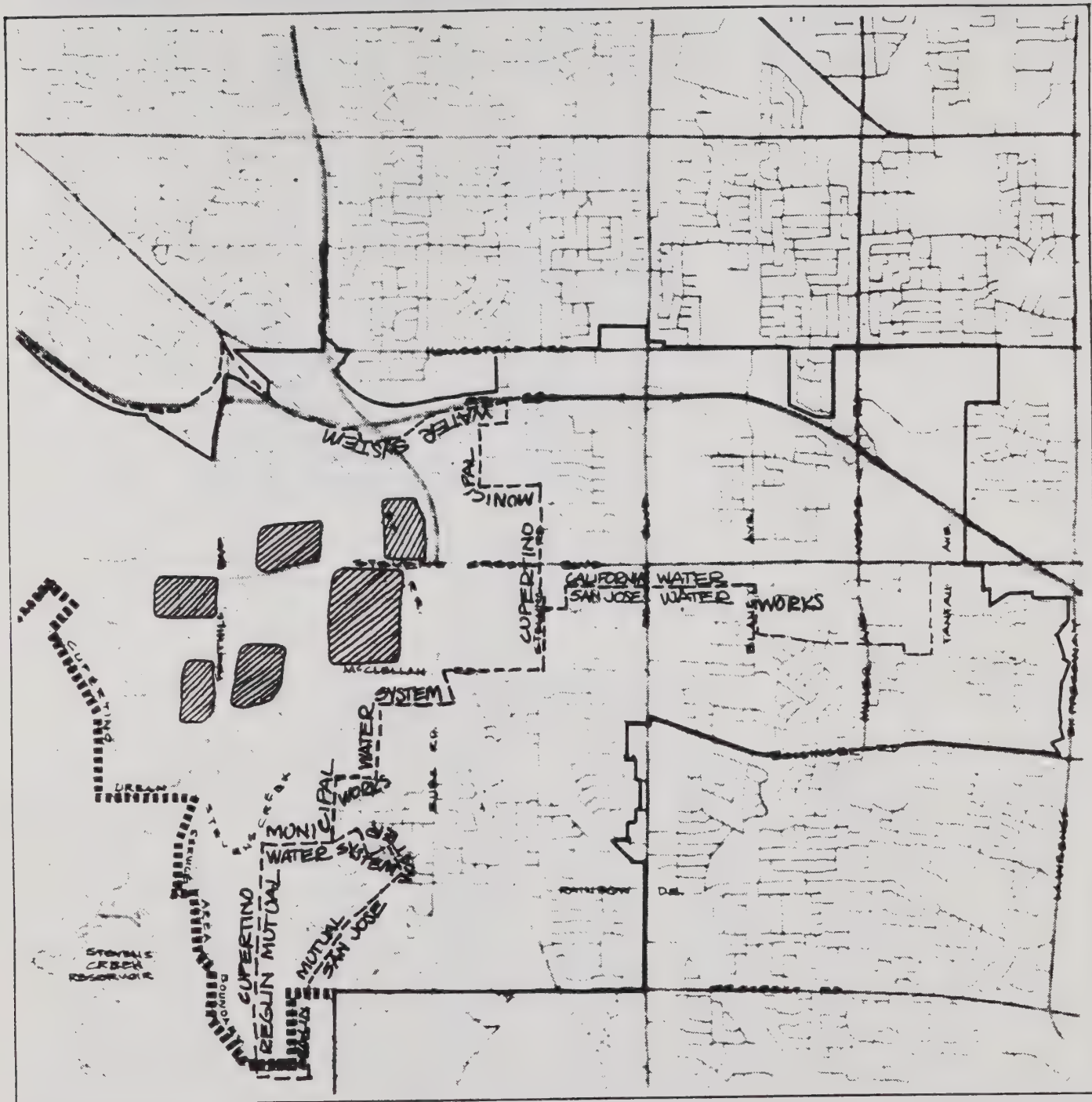


FIGURE 6-I
WATER SERVICE



INADEQUATE WATER MAINS

REGLIN MUTUAL WATER UTILITY SYSTEM SERVICE BOUNDARY
SAN JOSE WA...



factors utilized in insurance grading schedule together with its relative values. Table 6-G correlates the deficiency points with insurance rate classifications.

Table 6-F

Total Possible Points of Deficiency and
Relative Value of Items in
Grading Schedule

| Item | Relative Values | Per Cent of Total |
|--|-----------------|-------------------|
| Water supply | 1,700 | 34 |
| Fire department | 1,500 | 30 |
| Fire alarm | 550 | 11 |
| Fire prevention | 350 | 7 |
| Building department | 200 | 4 |
| Structural conditions | 700 | 14 |
| Climatic or unusual conditions | — | — |
| Divergence between first 2 items | — | — |
| Total | 5,000 | 100 |

Table 6-G

Points of Deficiency Which Determine Class for
Major Items in Grading Schedule

| Class | Water Supply | Fire Department | Fire Alarm | Fire Prevention | Building Department | Structural Conditions |
|--------------|--------------|-----------------|------------|-----------------|---------------------|-----------------------|
| 1 | 0-170 | 0-150 | 0-55 | 0-35 | 0-20 | 0-70 |
| 2 | 171-340 | 151-300 | 56-110 | 36-70 | 21-40 | 71-140 |
| 3 | 341-510 | 301-450 | 111-165 | 71-105 | 41-60 | 141-210 |
| 4 | 511-680 | 451-600 | 166-220 | 106-140 | 61-80 | 211-280 |
| 5 | 681-850 | 601-750 | 221-275 | 141-175 | 81-100 | 281-350 |
| 6 | 851-1020 | 751-900 | 276-330 | 176-210 | 101-120 | 351-420 |
| 7 | 1021-1190 | 901-1050 | 331-385 | 211-245 | 121-140 | 421-490 |
| 8 | 1191-1360 | 1051-1200 | 386-440 | 246-280 | 141-160 | 491-560 |
| 9 | 1361-1530 | 1201-1350 | 441-495 | 281-315 | 161-180 | 561-630 |
| 10 | 1531-1700 | 1351-1500 | 496-550 | 316-350 | 181-200 | 631-700 |

Class 1—0 to 500 points of deficiency

Class 2—501 to 1,000 points of deficiency

Class 3—1,001 to 1,500 points of deficiency

Class 4—1,501 to 2,000 points of deficiency

Class 5—2,001 to 2,500 points of deficiency

Class 6—2,501 to 3,000 points of deficiency

Class 7—3,001 to 3,500 points of deficiency

Class 8—3,501 to 4,000 points of deficiency

Class 9—4,001 to 4,500 points of deficiency

Class 10—4,501 and over points of deficiency

The municipality with a Class 1, for example, would have a very low level of risk while on the other hand a Class 10 area would have a very high level of risk and therefore higher insurance rates. It would be conceivable for the City to achieve a Class 1 or 2 category in order to provide a maximum protection of life and property and therefore lower insurance rates. However, in order to accomplish the change in classification from the City's current level of Class 4 to a Class 1 or 2 a considerable expenditure of monies would have to be made to augment the water supply, to increase manning levels and number of fire stations, and place greater restrictions on buildings. Since fire insurance premiums will not change that drastically it would be far more economically beneficial for both the community as a whole and for individual private property owners not to spend the monies needed to change the lower classification. The above comments notwithstanding, it is important to improve the level of fire protection and to decrease response time for emergency medical cares for individuals for certain areas within the community.

The following policy section of this document is designed to provide a better level of protection for certain sub-areas of the community.

Suggested Policies for the Fire Hazard Section of the Seismic Safety Element

The mountainous terrain outside of the Urban Service Area is the most hazardous area within the Cupertino Planning Area. The City does not have a direct involvement in the public safety aspects of fire hazards within the mountainous region of the Planning Area. However, fire safety within Montebello Ridge and Stevens Canyon area does directly affect the community. Major fires would decrease the effectiveness of the Stevens Creek water shed and would cause siltation of downstream portions of streambeds, thereby increasing flooding potential. A major fire would decrease recreation opportunities on lands owned by the County Park system and the MidPeninsula Regional Open Space District and destroy the City's scenic backdrop. Therefore, the City of Cupertino has a vital concern relative to fire hazards on land outside of the Urban Service Area. It would appear that the elected and appointed County officials are not implementing the County's Public Safety Element policies designed to reduce fire hazards within the hillsides. For example, the County delineated a program to design and maintain fire roads. County officials have not implemented recommendations by the County Fire Marshal's Office and other fire protection individuals to change standards increasing the water storage capacity for homesites from 5,000 to 10,000 gallons. Nor has the County allocated resources for proper inspection of water facilities. Cupertino's Public Safety Element therefore should encourage the County to take greater steps to reduce the risk of a major fire within the regions of the Cupertino planning area. Although County

government has not adequately implemented its fire prevention policies regarding land development, the County Board of Supervisors has recently entered into an agreement with a volunteer fire department formed to provide fire protection for the Montebello Ridge and Stevens Canyon area. The volunteer group's purpose is to provide fire protection during the months of October through May when the California State Division of Forestry Station at Stevens Creek Reservoir is unmanned. The Central Fire District will provide administrative support and the California Division of Forestry will provide training. The Board of Supervisors has agreed to provide \$6,000 a year to fund insurance for the group. Local residents have conducted fund raising events to provide equipment and plan to install additional water storage capabilities for fire protection purposes.

Policy 6-4: The City of Cupertino shall encourage the County to actively pursue the implementation of policies contained in the County Public Safety Element regarding the reduction of fire hazards.

Strategy 1: The City of Cupertino shall request the Board of Supervisors to provide extra funding, if required, to enable the County Public Works Department to design a comprehensive circulation system for Montebello Ridge and upper Stevens Canyon. The circulation plan should include future alignment for public roads, private roads and fire roads. The road planning efforts should include provisions to develop a regulation which would coordinate the timing and location of future development in a manner to ensure safe access prior to actual construction of new dwellings. The plan should also provide for either direct public maintenance or a publicly regulated private maintenance program for private roads and fire roads.

Strategy 2: The City Council will actively pursue the implementation of a Santa Clara County Public Safety Element policy which recommends that the minimum water storage capacity for a home exceeding 1,600 sq. ft. be raised from 5,000 to 10,000 gallons. The City Council shall also monitor efforts to implement a County program to periodically inspect water storage facilities.

The implementation of policies and programs to ensure adequate access and water supply, coupled with already effective regulations to ensure fire retardant building materials, and clearance of natural vegetation around dwellings, would help protect residents and property within the hillsides.

Policy 6-5: The City of Cupertino should encourage the MidPeninsula Regional Open Space District and the County of Santa Clara Board of Supervisors (Parks Department) to continue efforts in Fuel management to reduce fire hazard.

Policy 6-6: The City of Cupertino should encourage the MidPeninsula Regional Open Space District to consider uses for open space lands as a means to create "green" fire breaks. Use of this concept may include the possibility of commercial timber harvesting for firewood or building products.

Residents living within the Urban Service Area have an acceptable level of fire protection. There are however, a number of improvements that can be made to increase safety in specific areas.

Policy 6-7: The City shall prepare a master fire plan for the community. The intent of the plan is to outline a fire protection program which achieves the objective of obtaining a high degree of fire protection with a minimum of public and private costs. The break point in the level of service versus costs equation would be determined in conjunction with the master fire plan. The plan should determine the optimum level of fire protection service for each land use type. The study shall analyze the degree to which private property owners should be responsible for protection costs via building and fire codes (fire protection emphasis) versus increased fire stations and manning level costs (fire suppression emphasis).

Policy 6-8: A secondary means of access may be required for a hillside subdivision where a dead-end public street is longer than 1,000 ft. The secondary means of access may be a private roadway with easement rights to allow public use during an emergency.

Policy 6-9: The City shall continue to require smoke detectors in new residential construction and shall continue to support the effort of fire protection agencies to educate the residents of existing homes to install smoke detectors.

The City shall also utilize the Cupertino Scene to assist efforts of fire protection agencies to alert Cupertino citizens to fire hazards and the means to correct them.

Flood Hazard

The lives and property of Cupertino citizens are subject to flooding resulting from large rainstorms, failure of a man-made storage facility, and from a landslide-created water impound basin.

Flood Hazard From Rainstorms

The flood hazard resulting from large rainstorms is the most common source of flooding; however, it is relatively the least serious in terms of risk to life and property. The vast watersheds within the Santa Cruz Mountain range feed into four major streambeds which traverse the City: Permanente Creek, Stevens Creek, Regnart Creek and Calabazas Creek. Figure 6-J identifies the location of the streambeds and the extent of a flood that has a 1% chance of happening during any given year.

The 1% flood or 100-year event is accepted as a standard "design" flood condition by the Federal Flood Insurance Administration, the Army Corp of Engineers and locally by the Santa Clara Valley Water District and the City of Cupertino. The rationale for the 100-year event criteria is discussed in a later section regarding acceptable level of risk.

The balance of Cupertino's urban area is protected from flooding by the City's sub-surface concrete storm drain system. The City storm drain system was initially designed for a three year storm (i.e. maximum storm than can occur once in every three years). The City Council in 1977 adopted a revised master storm drain system which is designed to transport a 10-year flood. All new development areas in the community will have the greater capacity system installed. In the interim period, the key segments of the older system will be updated through the long-term capital improvements program. Although the City has not conducted a detailed analysis of the carrying capacity of its system for larger storm events (those greater than 10 years), in general a moderate storm (a 10-40 year event) will be contained within the curb and gutter sections of the City's street section and will thence flow into major storm channels and creek beds which are designed to handle a 100-year event. Heavier storms may result in some flooding of yards; however, in general, it would be extremely unlikely that storm water would enter into buildings. There are a few specific areas within the community that are not protected by storm water systems such as Old Monta Vista and older areas adjacent to the foothill fringe. It is difficult, if not impossible, to predict the precise location and extent of flooding that might happen in smaller isolated areas. In any case, the risk to life is virtually non-existent.

Heavy rainstorms in the foothill and mountainous areas of the planning area do not generally cause flooding problems. The Divisions of Mines and Geology-sponsored Armstrong and Anderson Report, prepared in conjunction with the Montebello Ridge Study, indicated that all streambeds can carry a 200 year event. The

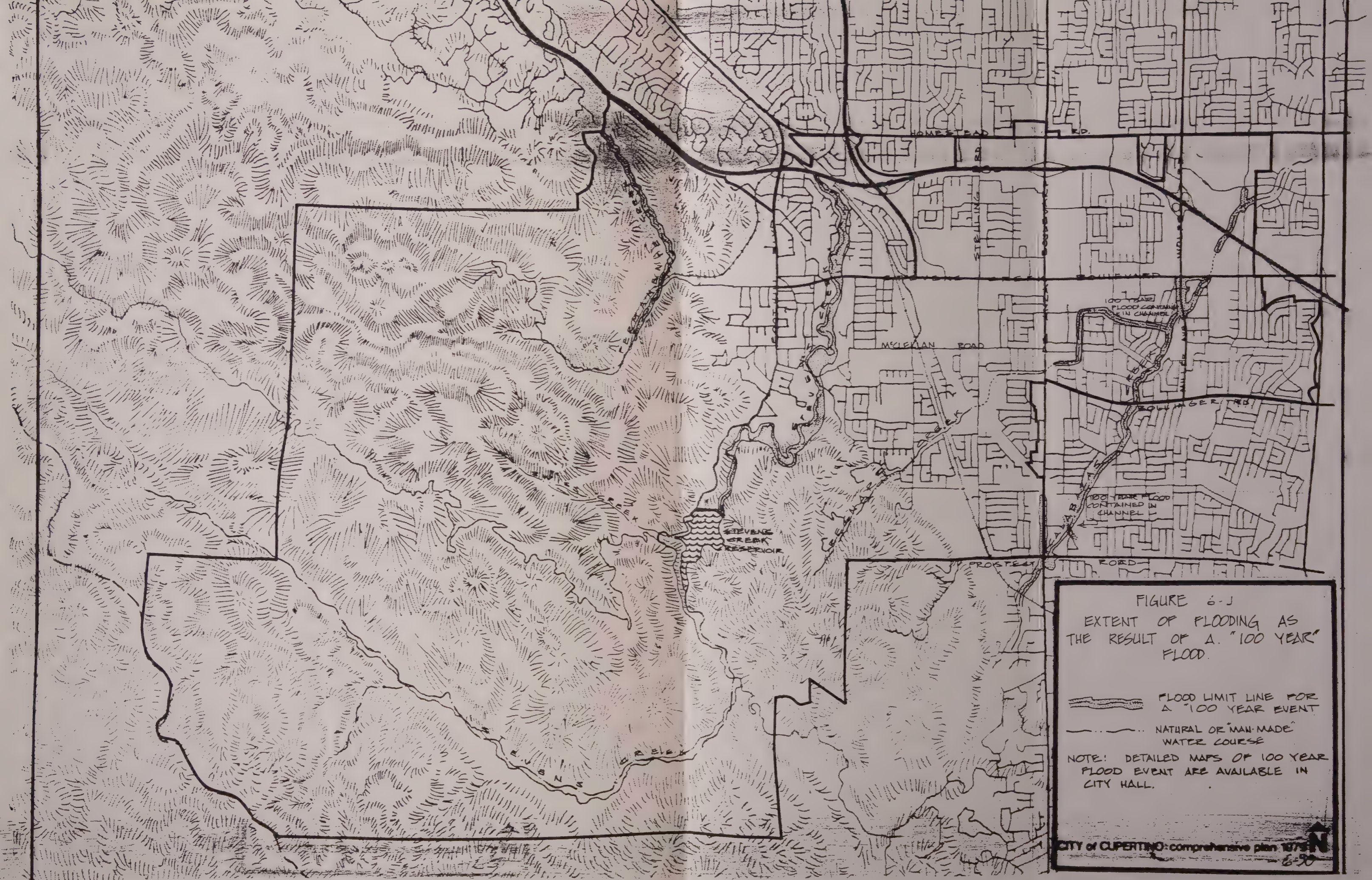





FIGURE 6-J
EXTENT OF FLOODING AS
THE RESULT OF A "100 YEAR"
FLOOD.

 FLOOD LIMIT LINE FOR
A "100 YEAR" EVENT

 NATURAL OR "MAN-MADE"
WATER COURSE

NOTE: DETAILED MAPS OF 100 YEAR
FLOOD EVENT ARE AVAILABLE IN
CITY HALL.

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6-90

main problem associated with rainfall in the foothills relates to conditions where heavy sheet flow of water exposes cut and fill slopes. Unless the cut and fill slopes are protected through erosion control methods, an immediate hazard condition via landslide and mudslide activity is possible which could have long-term effects resulting from siltation of streambeds.

Flood Hazard Resulting from Failure of Man-Made Water Storage Facilities

Figure 6-K identifies the location and size of man-made water storage facilities within the planning area. The figure schematically describes the area of inundation should Stevens Creek Reservoir instantaneously fail. The flood inundation area is based upon the maximum 3,700 acre feet storage capacity of the reservoir. At present the reservoir is being operated at a reduced level (1,200 acre feet maximum) pending completion of a dam safety study. Accordingly, the area of inundation would be a smaller area. The Santa Clara Valley Water District does not have an inundation plan prepared for the 1,200 acre feet storage capacity. It should be stressed, however, that the 1,200 acre feet limitation was imposed to remove the probability of dam failure based upon a maximum probable earthquake located on the San Andreas fault. The water utility storage tanks described on the plan are considered as minimal risk; nevertheless, there is potential for injury and property loss for properties located in close proximity to those tanks should they fail. Currently, there is no State or local legislation that requires owners of such tanks to prepare inundation maps and therefore neither the California Water Company, the City of Cupertino Water Utility, San Jose Water Works nor the Reglin Mutual Water System have prepared inundation maps for their facilities. The San Jose Water Works has installed flexible couplings and check valves in the 20 million gallon Regnart Road Reservoir to minimize valve and water line failure during a seismic event. The City's two 2 million gallon water tanks located on Mercedes Road do not have a check valve or flexible coupling feature at the present time.

The 8 to 10 acre feet Voss Avenue Pond located at the terminus of Voss Avenue was evaluated by an engineering consultant and determined to be safe.

Flood Hazard Resulting from Landslide Activity in the Hillside Ravines

There is potential for a landslide to occur within a steep ravine located within the foothill fringe in the more mountainous terrain outside of the Urban Service Area boundary. If a landslide occurs in a ravine serving a relatively large watershed, water could pond behind the landslide debris and eventually collapse resulting in a wall of water cascading down the ravine, causing property or personal injury. The watershed areas within the lower foothills located within the City's Urban Service Area are relatively small and therefore the risk of landslide caused flooding is minimal. There is a massive ancient landslide located to the west of Stevens Creek Reservoir. The Santa Clara

Valley Water District has concluded that based upon historical evidence and the particular configuration of the reservoir itself the landslide would not constitute a flood hazard by virtue of displacing water over the dam face itself nor resulting in an unstable pond facility.

Acceptable Level of Risk and Means to Manage Risk

Decisions involving the acceptable degree of protection for life and property are related to economic and social consideration. The Cupertino planning area watersheds are generally not large enough to result in life threatening flooding. The exception, of course, is that rain swollen flood channels often present a challenge to young people and as a result there have been drownings in the past involving individuals who either venture too close to the fast-moving storm channel or deliberately go into the streambed with a kayak or other type of boat. While it is possible to design flood protection for a 500 or 1,000 year storm, the equipment necessary to protect residents from such a flood would be extremely expensive in relation to the value of the land use activities on the property being protected. It would, for example, be foolish to construct a flood works to protect grazing land located next to a stream. It would be slightly less foolish to protect higher income yielding agricultural land. It is prudent to protect a single-family housing development and absolutely essential to protect a critical facility such as a hospital. The acceptable level of risk or exposure to flood hazards in the case of an instantaneous failure of Stevens Creek Reservoir is extremely low.

DESCRIPTION OF POLICIES AND PROGRAMS TO REDUCE FLOOD RISK

The Santa Clara Valley Water District and the City of Cupertino are actively involved in local programs to minimize the risk of flooding. In 1974, the City developed a flood plain land use policy for the non-urbanized reach of Stevens Creek southerly of Stevens Creek Boulevard, which ensures that the area which is naturally flooded by the 100-year event should be maintained in a natural state. The policy not only reduces flood hazard but it also protects the natural riparian environment of the flood plain. Both the City and the Santa Clara Valley Water District have developed a unique flood management program for the reach of Stevens Creek between Route 280 Freeway and Stevens Creek Boulevard. The program strategy is to retain the natural environment of Stevens Creek even though studies indicated that structural improvements would be necessary to absolutely protect properties from the 100-year event. The majority of residents within the Phar Lap Drive and Creston neighborhoods agreed to accept a higher level of risk for flooding with the understanding that risks be partially lowered by utilization of the Federal Flood Insurance Administration Program and an installation of a flood warning system.

The third leg of the strategy involves the construction of a new conduit on the 280 Freeway to reduce the barrier effect of the Freeway Route 280 earth and fill constructed across the natural flood plain.

Flood Hazard Policy No. 6-10: The City of Cupertino shall adopt stringent land use and building code requirements to prevent new construction from occurring in already urbanized flood hazard areas recognized by the Federal Flood Insurance Administrator. For example, the finish floor level for new construction must be higher in elevation than the flood water profile elevation for a 100-year storm. A description of flood zone regulations and a map identifying potential flood hazard areas will be published in the Cupertino Scene.

Flood Hazard Policy No. 6-11: The City of Cupertino shall continue its policy of prohibiting all forms of habitable development in natural flood plains. The policy position includes the prohibition of fill materials and obstructions which may increase flood potential downstream or modify the natural riparian environment.

One of the major expenses of the Santa Clara Valley Water District and of the City of Cupertino is to continuously remove sediment from drainage systems. The sediment is caused by both natural and development-induced erosion, primarily within the hillside areas of the community. In recognition of the erosion problem, the City has created a Hillside Development Ordinance which requires private hillside construction to install erosion control measures on all cut-and-fill slopes including both roadway and driveway systems and house pads. In addition to the possibility of increasing flood risk by clogging natural or manmade water courses, the erosion-caused settlement also clogs the natural percolation function of the streambeds, which replenish the underground water table.

Policy No. 6-12: The City of Cupertino shall continue to restrict the extent and timing of grading operations in its hillsides. Lot and street grading shall be limited to April through October. A suitable performance bond shall be submitted by a grading permit applicant prior to initiation of grading during the remaining months. The intent of the bond is to guarantee the repair of erosion damage. All graded slopes must be planted as soon as practical after completion of grading.

The majority of water storage facilities delineated on Figure 6-K are designed to withstand ground shaking. In those instances where the magnitude of ground shaking was not previously assessed or in the cases where water facilities were designed prior to new standards, the City should re-evaluate the design if publicly-owned or should implore the owners of storage facilities to conduct their own research to evaluate the structural integrity of the facility based upon a maximum probable event on the San Andreas fault. Each study should include an evaluation of the possible area of inundation.

Policy No. 6-13: The City of Cupertino shall program necessary funds to conduct an evaluation of the structural integrity of municipal water storage facilities, including attendant distribution line connections, and repair of critical facilities, if necessary. Possible flood velocities and inundation areas, should a facility fail, should be included in the evaluation. The study consultant shall consult with City's geological consultant to determine maximum expected ground shaking intensities and the geology of the tank site.

Noise Pollution

Freedom from excessive noise is a major factor in determining the quality of life enjoyed by the residents of a particular community. The noise environment is an accumulation of many different sources ranging from commonly used labor saving devices to the principal contributor - the vehicular circulation system. Table 6-H lists some common noise sources experienced by urban dwellers and their associated level of sound.

Table 6-H

Sound Levels and Loudness of Illustrative Noises in Indoor and Outdoor Environments
(A-Scale Weighted Sound Levels¹)

| dB(A) ² | OVER-ALL LEVEL (Sound Pressure Level Approx. 0.0002 Microbar) | COMMUNITY (Outdoor) | HOME OR INDUSTRY (Indoor) | LOUDNESS (Human Judgment of Different Sound Levels) |
|--------------------|---|---|---|---|
| 130 | UNCOMFORTABLY | Military Jet Aircraft Take-Off With After-Burner From Aircraft Carrier @ 50 Ft. (130) | Oxygen Torch (121) ³ | 120 dB(A) 32 Times As Loud |
| 120 | | Turbo-Fan Aircraft @ Take-Off Power @ 200 Ft. (118) ⁴ | Riveting Machine (110) Rock-N-Roll Band (108-114) | 110 dB(A) 16 Times As Loud |
| 110 | VERY | Jet Flyover @ 1000 Ft. (103) Boeing 707, DC-8 @ 6080 Ft. Before Landing (106) ⁵ | | 100 dB(A) 8 Times As Loud |
| 100 | | Bell J-2A Helicopter @ 100 Ft. (100) ⁶ | Newspaper Press (97) | 90 dB(A) 4 Times As Loud |
| 90 | LOUD | Power Mower (96) Boeing 737, DC-9 @ 6080 Ft. Before Landing (97) ⁷ | Food Blender (88) Milling Machine (85) | 80 dB(A) 2 Times As Loud |
| 80 | | Motorcycle @ 25 Ft. (90) Car Wash @ 20 Ft. (89) ¹ Prop. Plane Flyover @ 1000 Ft. (88) Diesel Truck, 40 MPH @ 50 Ft. (84) Diesel Train, 45 MPH @ 100 Ft. (83) | Garbage Disposal (80) Living Room Music (76) | 70 dB(A) |
| 70 | MODERATELY LOUD | High Urban Ambient Sound (80) Passenger Car, 65 MPH @ 25 Ft. (77) Freeway @ 50 Ft. from Pavement Edge, 10 A.M. (76 ± 6) ¹ | TV-Audio, Vacuum Cleaner (70) | 60 dB(A) 1/2 As Loud |
| 60 | | Air Conditioning Unit @ 100 Ft. (60) | Cash Register @ 10 Ft. (65-70) ¹ Electric Typewriter @ 10 Ft. (64) ¹ Dishwasher (Rinse) @ 10 Ft. (60) ¹ Conversation (60) | 50 dB(A) 1/4 As Loud |
| 50 | QUIET | Large Transformers @ 100 Ft. (50) | | 40 dB(A) 1/8 As Loud |
| 40 | | Bird Calls (44) ¹ Lower Limit, Urban Ambient Sound (40) | | |
| 10 | JUST AUDIBLE | [dB(A) Scale Interrupted] | | |
| 0 | THRESHOLD OF HEARING | | | |

The degree to which noise irritates us depends on a variety of factors, some of which are independent of the noise source itself. For instance, time of day, background or "ambient" sound level, the activity in which the listener is engaged, and surrounding land use can all influence the degree to which a particular sound is perceived as annoying. Certain value judgments also enter into one's tolerance for urban sound levels. Emergency sirens and lawnmowers which reach very high sound levels are tolerated by most people because they represent socially-necessary actions; (i.e. public safety and neighborhood upkeep). On the other hand, loud noises from vehicles with defective or illegal mufflers are usually greeted as an unnecessary disturbance.

Despite efforts to identify and regulate sources of urban noise pollution overall noise levels seem to be increasing. Truly effective solutions to the noise problem will probably require changes in lifestyle and certain trade-offs between freedom from government intervention in our personal lives and the degree of convenience and economy which we enjoy from use of noise emitting devices. It is certainly not possible to control all sources of urban sound to which individual citizens may object; however, some regulation is needed to offset the very real negative results of excessive noise levels.

Figures 6-L and 6-M are noise contour maps which focus on the transportation network and its noise impacts upon the community. These impacts are described in Ldn (average day/night sound levels) and L10 (sound level exceeded 10% of the time). The L10 map is especially useful for illustrating the less continuous, more noticeable sporadic noise events which characterize traffic sounds in residential neighborhoods.

Effect of Noise on People

Noise can affect the physical, social, psychological and economic well-being of residents within a community. Studies conducted by the United States Environmental Protection Agency have demonstrated that excessive noise can result in temporary or chronic hearing losses and in some cases, physiological damage to the inner ear. Noise can reduce the opportunity for privacy, adversely influence mood, disturb relaxation, and interrupt sleep. Noise can interfere with speech and confuse other auditory signals. If noise disrupts the performance of complicated tasks within the work environment, diminished efficiency of workers and consequent economic loss can result. All of the aforementioned stresses are justifiable reasons for attempting to control urban noise impacts. The following section, therefore, will outline and discuss some of the measures which can be implemented on the local government level and identify policies of the City aimed at counteracting some of the increasingly pervasive irritations of the community noise environment.

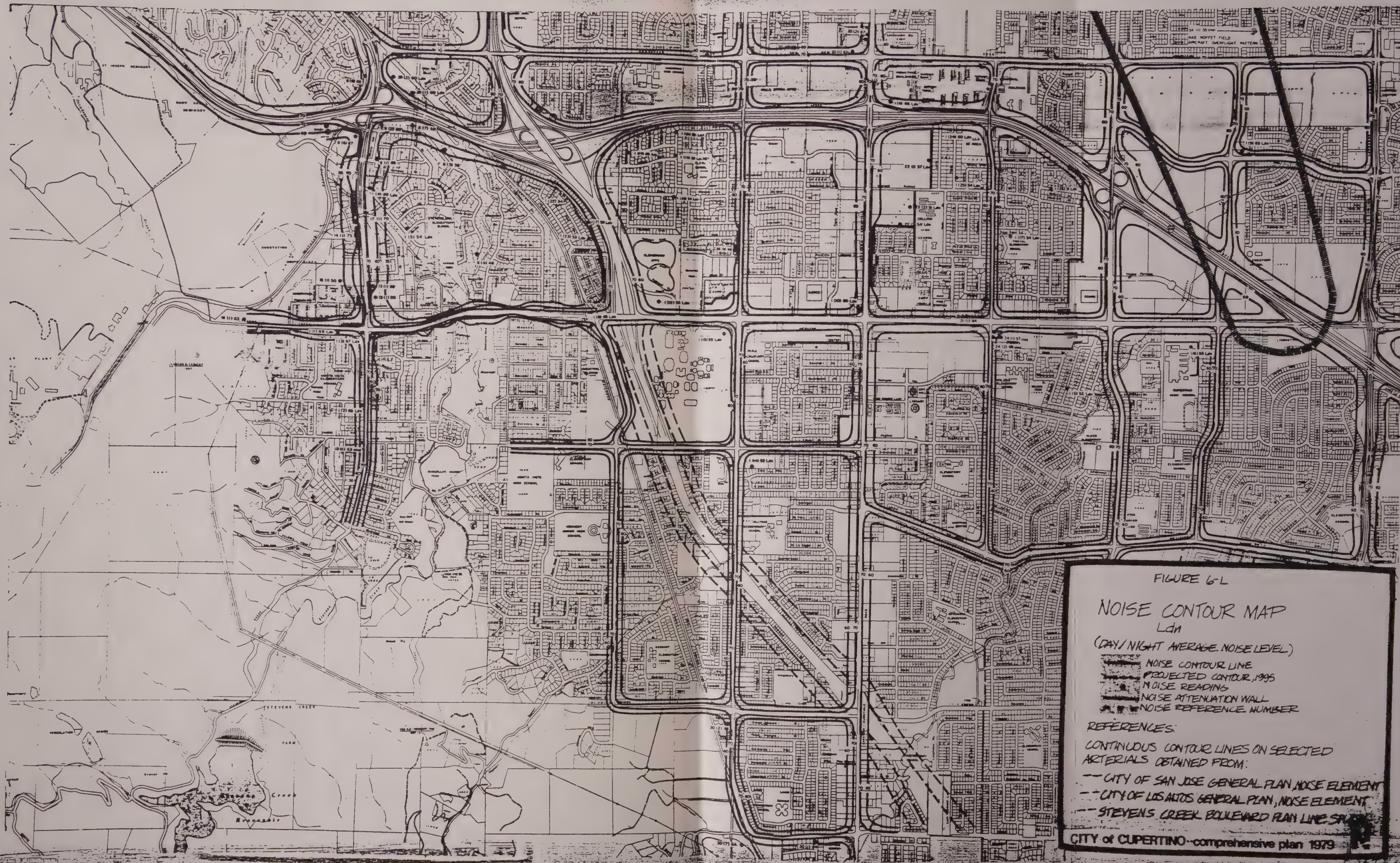


FIGURE 6-L

NOISE CONTOUR MAP
Ldn

(DAY/NIGHT AVERAGE NOISE LEVEL)

- NOISE CONTOUR LINE
- PROJECTED CONTOUR, 1995
- NOISE READING
- NOISE ATTENUATION WALL
- NOISE REFERENCE NUMBER

REFERENCES:

CONTINUOUS CONTOUR LINES ON SELECTED
ARTERIALS OBTAINED FROM:

- CITY OF SAN JOSE GENERAL PLAN NOISE ELEMENT
- CITY OF LOS ANGELES GENERAL PLAN, NOISE ELEMENT
- STEVENS CREEK BOULEVARD PLAN LINE STUDY

CITY OF CUPERTINO - comprehensive plan 1979

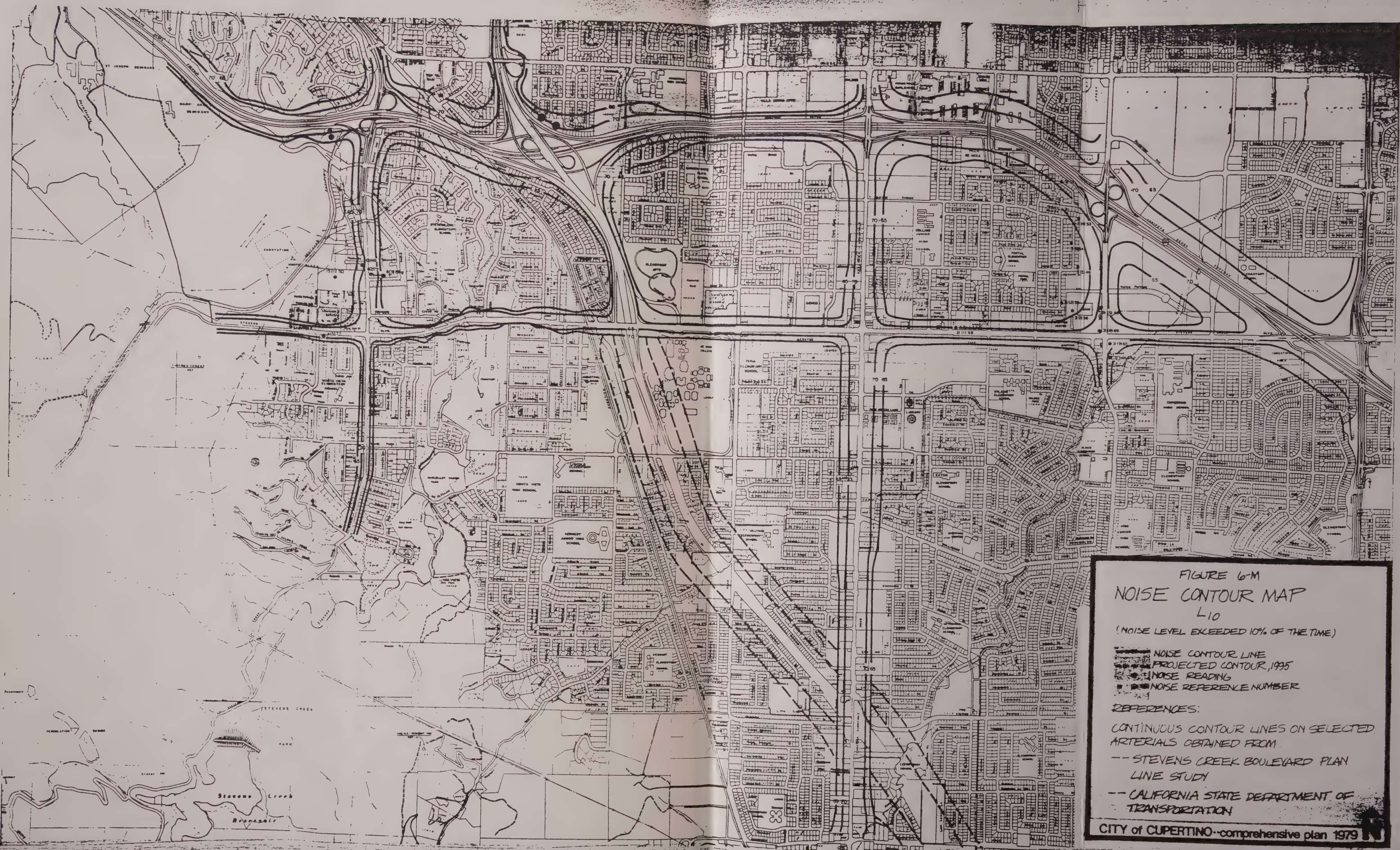


FIGURE 6-M
NOISE CONTOUR MAP
L₁₀

(NOISE LEVEL EXCEEDED 10% OF THE TIME)

NOISE CONTOUR LINE
PROJECTED CONTOUR, 1995
NOISE READING
NOISE REFERENCE NUMBER

REFERENCES:

CONTINUOUS CONTOUR LINES ON SELECTED
ARTERIALS OBTAINED FROM:

-- STEVENS CREEK BOULEVARD PLAN
LINE STUDY

-- CALIFORNIA STATE DEPARTMENT OF
TRANSPORTATION

CITY of CUPERTINO-comprehensive plan 1979

THE CUPERTINO NOISE ENVIRONMENT: GOALS AND POLICIES

The Noise Section of the General Plan provides a policy framework for guiding future land use/urban design decisions, and contains a system of controls and abatement measures useful for protecting citizens from exposure to excessive or unacceptable noise levels. The policy objectives will be identified and analyzed according to issues of land use compatibility, transportation related, and non-transportation related noise sources and will also include discussion of those especially severe impacts associated with Kaiser Permanente truck traffic on Foothill and Stevens Creek Boulevards.

Understanding the following goals and policies requires agreement upon what is considered an acceptable "noise standard". Essentially, the noise standard consists of commonly recognized activities, the disruption of which is unwelcome. Uninterrupted speech communication and undisturbed rest are two common referenced activities necessary to social relationships and personal health. Various studies, which are referenced in the Noise Element Working Paper, have established maximum interior noise levels which will ensure undisturbed relaxation and conversation. Unfortunately, exterior noise environments are more difficult to analyze and to control. The ability to speak at close range in a normal voice seems to be a reasonable standard against which to judge the outside noise condition. On the basis of these standards, then, this Section outlines techniques which can help to protect both the interior and exterior environments from disruption by urban noise of those activities basic to comfortable daily living.

Land Use Compatibility

Goal A: The City of Cupertino should strive to ensure a compatible noise environment for all existing and future land use categories within the community.

Many of the undesirable implications of urban noise can be reduced or avoided if existing and projected noise conditions are considered when assigning land uses to specific parcels. While noise cannot, and should not, be the primary factor considered in land use analysis, the City should strive to match uses which encompass broad ranges of noise levels and are considered otherwise compatible.

Compatibility may be achieved by locating specific use types outside of designated noise impact areas, or by requiring modification of the site design to reduce noise disturbances through setbacks, noise walls, building insulation, or landscaping.

Policy 6-14: Figures 6-L, 6-M, and 6-N will be used to evaluate land use decisions.

Strategy 1: Site/land use compatibility shall be determined for all reassignment of land uses under the General Plan, and for all new or significantly modified development proposals in order to determine appropriate mitigating measures.

Strategy 2: In cases where the proposed or existing land use falls within those categories other than "normally acceptable" as depicted on Figure 6-N, the City may require preparation of a noise analysis to include suggested mitigation measures to be implemented as conditions of official project approval.

Policy 6-15: In all cases, new residential development shall conform with the 45 dBA, Ldn average noise level established by Title 25 of the California Administrative Code.

Strategy 1: Upon receipt of an application for a new residential development or the significant remodeling of an existing multi-family apartment or ownership project, the City staff will review the proximity of the project to the Ldn noise contour map, and review the results of previous noise studies to determine if the above standards can reasonably be complied with through conventional construction practices. If the staff determines that the information presently available is inconclusive or not sufficient, the staff may request the developer provide an acoustical analysis at the time of application submittal. In any case, the applicant may appeal staff recommendations to the Planning Commission.

Strategy 2: The City will evaluate adoption of a noise standard which assesses and limits the level of less frequent, more intrusive noise.

Transportation Noise

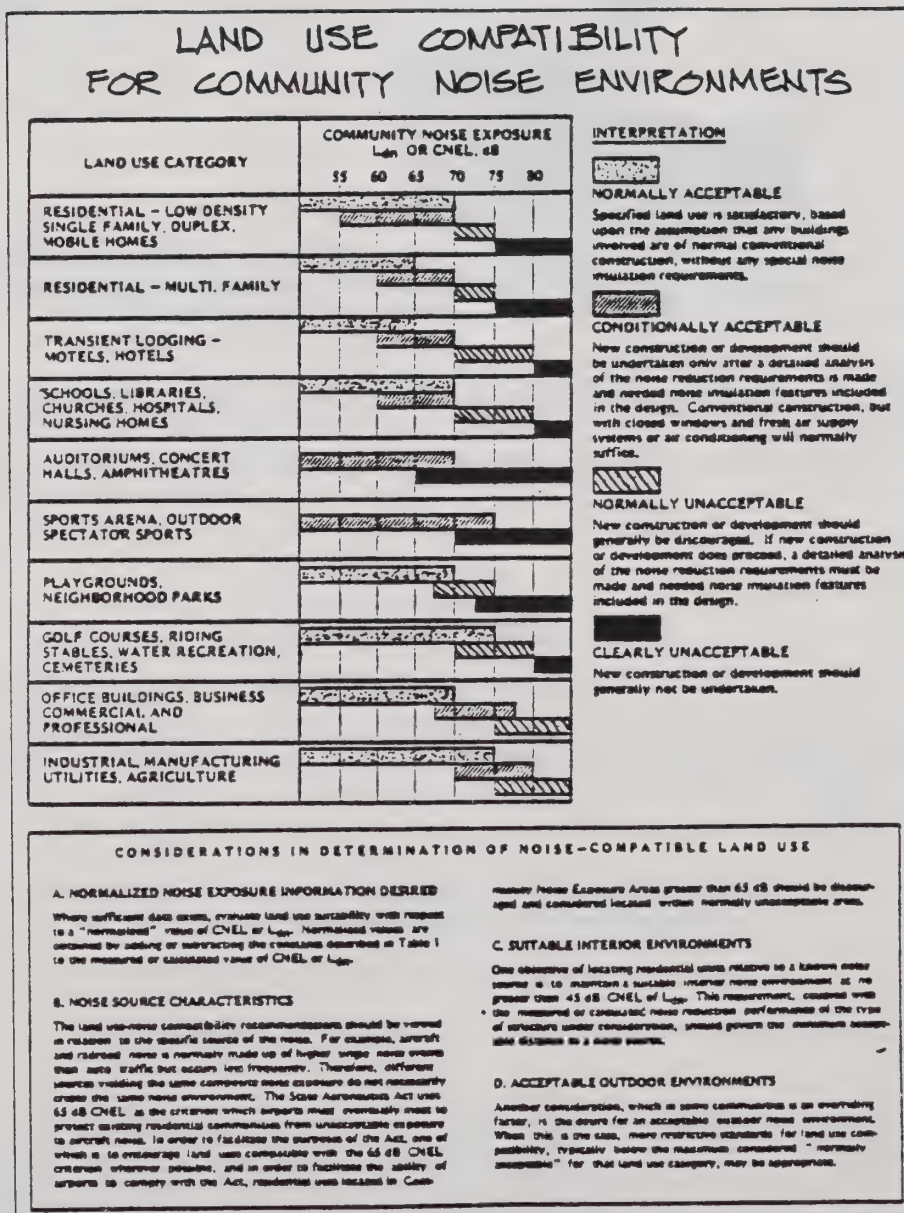
Goal B: The City should strive to reduce the noise impact of major streets and freeways upon the community.

Transportation-related sound is the greatest contributor to noise in Cupertino, and one of the most difficult sources to control effectively through local effort. Cupertino is bisected by two major freeways and nine major arterials.

The City of Cupertino is fortunate that significant portions of Highway 85 and 280 are recessed, which helps to minimize the noise impacts upon the surrounding neighborhoods. Freeway noise tends to take on a constant but more subdued roar, and represents less of a direct threat to the safety of residents located in neighborhoods adjoining the freeway.

Local north/south running streets are subject to particularly heavy use by commuters traveling to and from destinations outside of the City while adding significantly to local congestion, air pollution, and noise. The through commute dilemma is further exasperated by the incomplete status of State Route 85 which, if and when completed, will direct much of the through commute volume away from the City's local streets. Unfortunately, however, future extension of Route 85 will increase noise level exposure above acceptable limits for many of the homes already existing along the unimproved right of way.

Figure 6-N





In total, approximately 2,000 out of approximately 16,000 units within the Urban Service Area (inclusive of the San Jose boundary adjustment area) are exposed to excessive noise levels from freeways and major streets.

Table 6-I
NOISE EXPOSURE INDEX
(Ldn, 60 dBA, and Above)

| | Existing | | Future* | | Total | |
|-------|----------|------------|---------|------------|-------|------------|
| | Units | Population | Units | Population | Units | Population |
| R1 | 1,500 | 4,380 | 300 | 880 | 1,800 | 5,260 |
| R2/R3 | 500 | 1,460 | | | | 1,460 |
| Total | 2,000 | 5,840 | 300 | 880 | 2,300 | 6,720 |

* Future impacted areas result from Highway 85 extension to Saratoga-Sunnyvale Road and Bollinger Road extension to Stelling Road.

Note: Population multiplier equals 2.92 persons/unit.

Careful consideration of potential noise generated by the 85 extension is imperative in any future design actions for this roadway, and should accompany more stringent State and Federal noise emission standards to reduce these anticipated impacts.

Policy 6-16: The City will seek to ensure that design and improvement of transportation facilities along the West Valley Transportation Corridor are accomplished in a manner which minimizes noise impacts upon adjoining neighborhoods through appropriate design techniques.

Policy 6-17: The City should continue to support the enactment of stricter State legislation governing noise emission from new motor vehicles and enforce existing street laws governing noise emissions.

Local Streets/Neighborhood Protection

SOUND OFF CARD!

(Comments, Suggestions, Gripes, Plaudits)

HOW ABOUT A CRACKDOWN ON
NOISE POLLUTERS. (CARS AND
MOTORCYCLES WITH LOUD EXHAUSTS).
THEY ARE NOT NECESSARY FOR
EFFICIENT OPERATION OF THE
VEHICLES.

SOURCE: CITIZEN COMMENT - CUPERTINO SCENE
SOUND-OFF CARD - OCT. 10, 1978.

Local neighborhood streets are particularly sensitive to noise abuse. The need to move private vehicles, and the need to minimize response time of emergency services must be balanced against the need for safe and quiet neighborhood environments when the organization of neighborhood street networks are considered.

Policy 6-18: The City should continue to review the safety and convenience needs of area residents and prioritize neighborhood needs over the convenient movement of commute or through traffic where practical.

Policy 6-19: The City should continue to evaluate solutions to discourage abuse of local streets through modified street design (e.g. meandering streets, diverters, landscape islands, street closures, widened parking strips, etc.).

Circulation
page 4-23
policies 4-10
4-11
4-12

Community Character
page 2-23
policy 2-25



TRAFFIC DIVERTER ACROSS FROM ENTRANCE TO DEANZA COLLEGE AT PEPPER TREE LANE PROHIBITS THROUGH TRAFFIC USE OF ADJOINING NEIGHBORHOOD STREETS.



WIDENED PARKING STRIP AT CORNER OF STELLING ROAD AND PROSPECT ROAD SEPARATES TRAVEL LANES FROM FRONT YARDS AND IMPROVES SENSE OF SAFETY.

Strategy 1: Implementation of the above policy may require direct monetary participation through creation of local improvement districts.

Trains and Aircraft Overflight

Railroad and aviation operations do not contribute significantly to the Cupertino noise environment. Aircraft overflights into Moffett Field Naval Air Station are restricted to the northeasterly corner of the community (see Figure 6-L) affecting some residents of the Rancho Rinconada neighborhood.

PUBLIC HEALTH & SAFETY

6-45

The City's only railroad line passes through the Monta Vista area and connects with the Kaiser Permanente Plant in the western foothills. Currently, only two train movements occur per day; however, intensified shipment of Kaiser products by rail could significantly increase noise levels for numerous residences along the Southern Pacific right of way for which noise attenuation devices are not provided.

Kaiser Permanente Truck Traffic

Perhaps the most critical example of transportation related noise intrusion upon the quality of neighborhood life is the effect of heavy duty truck trips to and from the Kaiser Permanente Plant in the western foothills upon the residents adjacent to Stevens Creek Boulevard and Foothill Boulevard. Approximately 1,500 trips occur each working day, generating up to 90 DBA noise levels adjacent to the roadway.



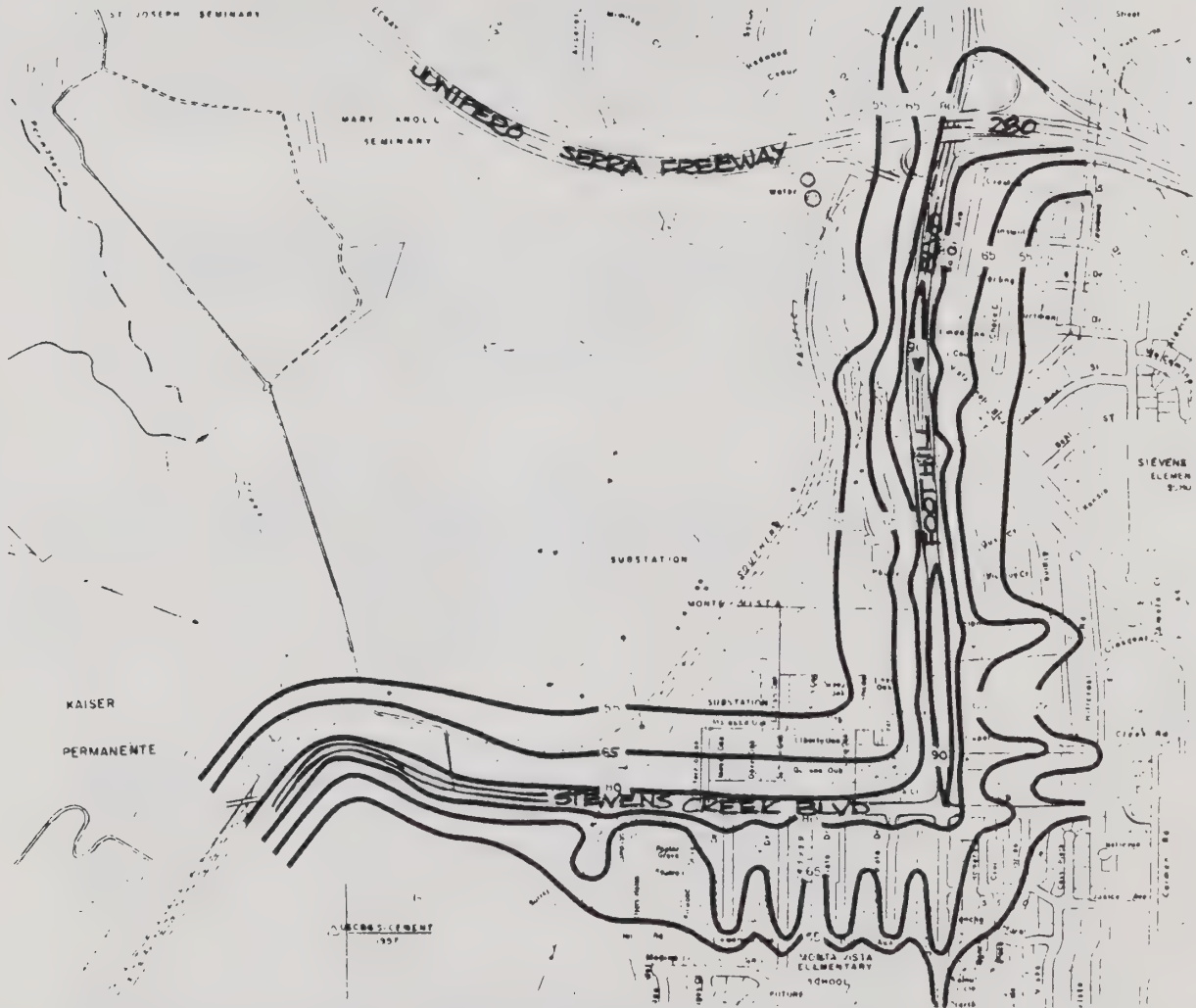


FIGURE 6-0

EQUAL NOISE LEVEL CONTOURS
(NUMBERS REPRESENT TRUCK LEVELS L_T IN dBA)



Acceleration and deceleration movements, use of high powered braking equipment and unusual steepness of roadway grade all exasperate the truck noise problem. A detailed analysis of noise behavior characteristics and description of especially impacted areas of the Foothill/Stevens Creek Boulevard area may be found in the Noise Element Working Paper Appendix. Figure 6-0 displays the results of an analysis of truck noise conducted by Edward L. Pack and Associates. This study used an L+ descriptor which attempts to only define the noise generated by Kaiser trucks.

Policy 6-20: The City of Cupertino should continue to work toward improvement of the noise environment along Foothill Boulevard through restriction, preferably voluntary, on truck traffic movements to the Kaiser Permanente Cement Plant, especially during late evening and early morning hours.

A special study prepared by professional acoustical engineering consultants suggested a series of noise mitigation measures to protect homes along the truck traffic corridor. Strategic implementation of these measures, coupled with efforts to reduce incidences of truck travel could provide some relief to those residents most severely affected.

Policy 6-21: The City should strive to implement noise attenuation measures enumerated in the Edward L. Pack and Associates report to relieve residences adjacent to Foothill and Stevens Creek Boulevards from excess noise impacts resulting from Kaiser Permanente truck traffic.

Strategy 1: The City should compile and distribute to citizens in the noise impacted areas information on structural building noise attenuation measures. The information pamphlet should also contain an overview of current noise laws and the telephone number of agencies to contact with complaints.

Strategy 2: The City should require, as conditions of development approval, that deeds of property in the impacted area contain recorded notices informing buyers of special noise problems in their vicinity.

Non-Transportation Noise Sources

Goal C: The City should protect residential areas to the greatest degree possible from intrusive noise generated by sources other than, and in addition to, the urban transportation network.

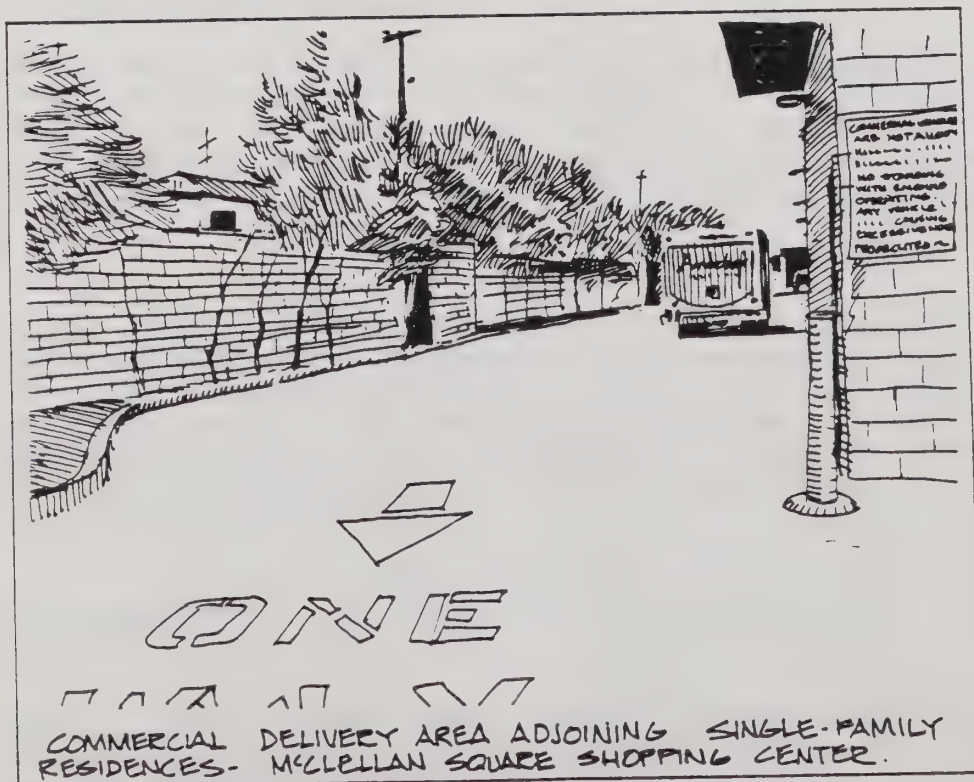
Non-transportation sources are typically immobile and characterized by sporadic or impulsive occurrence. While these impacts are relatively minor when compared to the influence of the transportation system, such things as incessant barking of an unruly neighborhood dog, or rattling of garbage cans during sleeping hours can be annoying and disruptive. While complete control of such disturbances is not likely, the City's attention can and should be directed toward protecting neighborhoods from excess noise during relaxation activity hours during which background noise levels tend to be lower.

Adjoining Dissimilar Land Uses

Cupertino residents adjoining commercial development often complain of late night and early morning disturbance from loading docks when such facilities are located in close proximity to their homes. Similarly, residences adjoining industrial areas are often annoyed by sounds from chemical storage plants, air conditioning equipment and the general manufacturing process. These problems, although easily anticipated, are often difficult to resolve in the development review process, as competing economic interests and property rights must be balanced.

Policy 2-23 of the Land Use/Community Character Element of the Cupertino General Plan provides a strategy for design controls for ensuring a more peaceful co-existence between adjoining dissimilar land uses. These controls should be studied carefully at the inception of a commercial or industrial project which will adjoin a residential neighborhood.

dissimilar uses
page 2-21
policy 2-23



PUBLIC HEALTH & SAFETY

6-49

Policy 6-22: New commercial or industrial developments should orient delivery areas away from existing or planned residential developments.

Policy 6-23: The City should continue to actively enforce Section 10.45 of the Municipal Code limiting commercial and industrial delivery hours.

Policy 6-24: The City should continue to require analysis and implementation of techniques to control noise impacts from industrial equipment and processes for projects near residential neighborhoods.

Land Use/
Community Character
page 2-21
policy 2-23

Construction activities can also disrupt the successful neighborhood environment. Anticipating such impacts, the City has requested in several cases that building construction cease during evening and weekend periods.

Policy 6-25: The City should continue to restrict non-emergency building construction work during evening, early morning and weekend hours when such construction is near by residential neighborhoods.

Common Neighborhood Disturbances

The common activities of daily living often produce sounds audible beyond the boundaries of the sites from which they originate, oftentimes to the annoyance of nearby neighbors. Barking dogs, lawnmowers, parties, amplified music, and pool equipment are just a few of those common activities which can disrupt domestic tranquility.

Policy 6-26: The City should develop a comprehensive Noise Ordinance which encompasses time restrictions governing commercial and industrial deliveries, establishes procedures for regulating noisy animals, provides regulation of hours for construction activity and establishes maximum noise level for common neighborhood disturbances.

Community Noise
Control Ord. #1022
Adopted July 1980

Noise Attenuation

Goal D: The City should encourage use of noise attenuation techniques wherever their application can produce practical and desirable results.

Because the air is full of sound waves traveling in all directions, interior noises can best be attenuated in much the same way as one protects the home from cold air during the winter months. Leaks around doors, window, vents, or through open fireplace dampers, uninsulated exterior walls and lack of seals or weather stripping all increase the capability of noise to intrude into a structure. Because the presence of sound is so pervasive in the urban environment, it is easy to see why control of exterior living environment noises is difficult.

A variety of techniques can be utilized with varying degrees of effectiveness to interrupt the transmission path of noise. To achieve maximum effectiveness, each site should be evaluated to determine the best combination of devices to attenuate noise. The following summarizes some of the commonly utilized techniques and their characteristics.

Barriers

Solid, air impervious sound walls can reduce noise from 1 to 15 dba or more. The effectiveness of noise attenuation walls depends upon the relative grade of the roadway, the distance of the receptor from the center line of the nearest travel lane, placement and height of the noise wall with respect to the noise source's line of travel, the size and location of the area to be protected and the frequency components of the noise source. Since longer wave length low frequency noise components bend around obstacles more readily than the shorter wave length high frequency components, the barrier performance improves with increasing frequency of the noise. Also, the barrier is usually most effective when located close to the source or to the receiver, assuming both source and receiver are below the top of the barrier as the bending angle is then greater. Also, barriers should be installed to control sound flanking around the ends of the barrier.

A final consideration of noise barriers is that they can be aesthetically unpleasing and wall-in or separate neighborhoods. An effective low cost technique to buffer the hard cold surface of the noise attenuation walls is to use landscaping. Landscaping along the roadway side of walls should be of a dense evergreen material whenever possible and include ivy or vines to grow along the wall. The use of landscaping will also reduce sound reflections from the wall which can increase noise levels on the opposite side of the roadway as much as 1 to 3 decibels.

Policy 6-27: The City will exercise discretion when requiring noise walls to ensure that all other methods of noise attenuation have been explored and that the proposed wall is aesthetically compatible with the surrounding neighborhood.

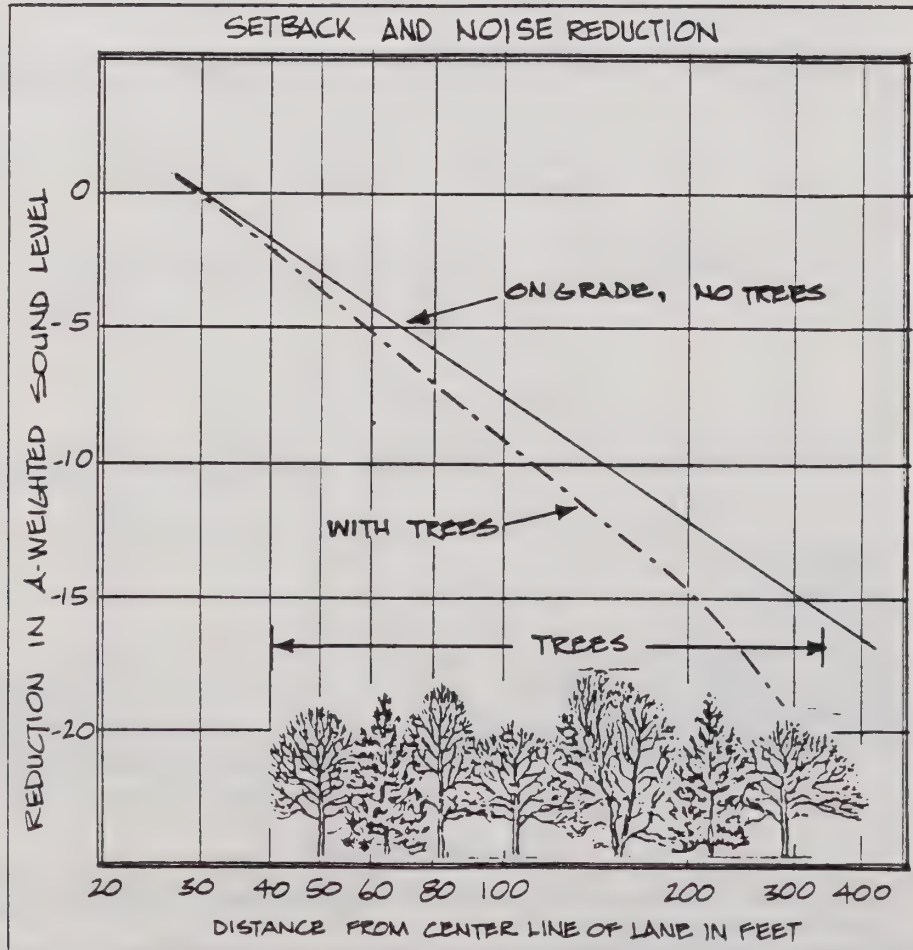
Community Character
Policy 2-19
page 2-18

Strategy: The City will assist the formation of special assessment districts to install noise barriers in areas where existing single-family residences back up to major thoroughfares. In all cases, where walls are deemed necessary to attenuate noise, landscaping materials shall be utilized on the street side of the noise wall.

Landscaping and Setbacks

Practically speaking, landscaping and setbacks are not an effective solution to reducing noise levels. Plants and trees are porous to air flow and lack density. Setbacks can provide some help to attenuate noise, however, distances must be substantial to produce a noticeable noise reduction. For heavy traffic conditions, sound levels would decrease approximately 3 db for each doubling of the distance from center line of the road. Under light traffic conditions, noise would diminish at the rate of 6 db for each doubling of the distance from the center line of the road. The following figure taken from Santa Clara County Noise Element illustrates the effectiveness of setbacks and landscaping on noise (Figure 6-P - Setback and noise reduction).

Figure 6-P



SOURCE: SANTA CLARA COUNTY NOISE ELEMENT- JULY, 1976

Building and Site Design

Building and site design techniques can be very effective tools to mitigate noise on new developments or upon significant modification of existing buildings. Sensitive areas within a site can be set back or buffered by buildings, parking or recreation areas. Individual buildings can use less sensitive living areas (i.e. kitchens, bathrooms, garages) to buffer the more noise sensitive bedroom and living rooms. Buildings should orient a solid wall toward the noise source and ensure that no vents or other air leaks are directed toward the noise source.

Insulating Buildings from Noise

Conventional building practices will achieve between 15 to 20 db reductions in the adjoining roadway noise levels.

The following table, taken from the Santa Clara County Noise Element, represents the approximate amount of noise attenuation afforded by typical building types.

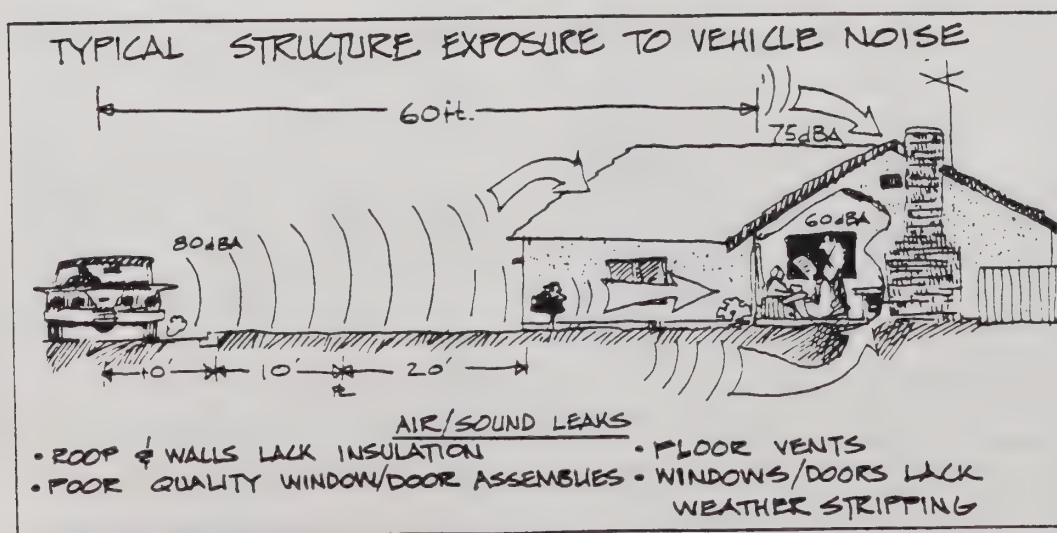
Table 6-J

Approximate Noise Reduction Achieved by Exterior of Common Structures*

| Building Type | Window Condition | Reduction of Noise from Outside Sources | Highest Exterior Noise Level Which Would Achieve An Interior Design Noise of 45 dBA |
|---------------|-----------------------|---|---|
| | | | dBA |
| All | Open | 10 decibels | 55 |
| Light frame | Ordinary sash, closed | 20 decibels | 65 |
| Masonry | Single pane, closed | 25 decibels | 70 |
| Masonry | Double pane, closed | 35 decibels | 80 |

Source: Federal Highway Administration, Policy and Procedure Memorandum 90-2, February 8, 1973 - Reprinted in Santa Clara County Noise Element, July, 1976.

Figure 6-Q



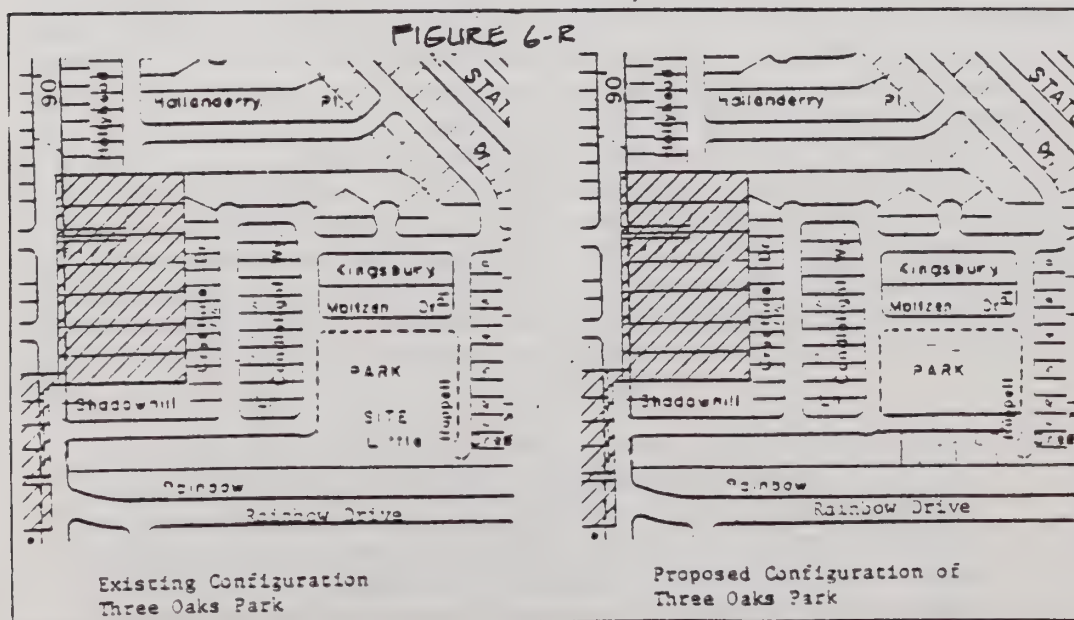
Crime

In the early 1970's, Architect Oscar Newman popularized the "Defensible Space" concept. Simply stated, defensible space uses architectural design to create a physical environment which enables the inhabitant of that environment to monitor activities and thereby reduce odious behavior. The City of Cupertino Planning Commission and Architectural and Site Approval Committee evaluates 70-100 development projects a year. Those projects translate into living and working environments for Cupertino citizens. The City should, in the future, develop an appreciation of the sociological and psychological effects of the physical environment on human behavior.

Park Design

Residents living immediately adjacent to neighborhood parks experienced problems resulting from nuisance and criminal behavior within the parks, particularly those areas within parks that are not easily visible from the street.

Future park design will include a provision for the construction of a perimeter road which would allow neighboring residents and police personnel to have visual access to the park from all sides. The design principle amplifies the defensible space concept whereby individual residents within a neighborhood have more control over their neighborhood space. Figure 6-R illustrates an existing and proposed configuration for Three Oaks Park located northerly of Rainbow Drive. If technical and legal problems can be resolved, a southerly portion of the park will be sold to a residential developer with the proceeds to be used to either improve the Three Oaks Park or to acquire land in an adjoining neighborhood for an additional park. Existing parks within other areas of the community should be reviewed to see if the concept is applicable.



The City's zoning codes stress the need to provide visual privacy protection. Privacy protection emphasis may conflict with Newman's defensible space hypothesis. The conflict would become evident if and when privacy design techniques isolate households to the degree that individual residents lose the feeling of possession of private and semi-private spaces within the residential development. Design can be used to create social cohesion within a development. Neighborhood cohesion or neighborhood social support is important not only for a planned residential community but in single-family detached conventional subdivisions as well. For example, a resident living in single-family residential home needs assurance that the neighborhood as a whole would support his or her effort to question a stranger parked adjacent to a curb or report a strange automobile that repeatedly cruises up and down a street. If the resident perceives that other neighbors do not wish to get involved or do not care about strangers in the neighborhood, then the residents territorial imperative would most likely be limited to his own property. The City of Cupertino has actively supported a neighborhood awareness program to not only provide advice regarding prevention of crime on their own property but to act as a mechanism to encourage neighborhood cohesiveness.

Policy 6-28: The City of Cupertino will continue to support the Neighborhood Awareness Program and other programs which are intended to assist neighborhoods in preventing crime through social interaction.

Non-Residential Design for Defensible Space

The use of design techniques to prevent crime in non-residential districts is more direct. The key is not in the creation of social cohesiveness but rather to design structures in a manner to ease the patrol operation of police officers and to aid community surveillance. Decisions involving crime prevention in commercial and industrial properties involve trade-offs between aesthetics and ease of access for patrol vehicles and also involve trade-offs between privacy and acoustical protection between commercial properties and adjoining residential properties. Commercial office and industrial properties that are designed in a manner to provide interior garden courts with private fence patios with designs that isolate entrance points are more prone to burglary and robbery than those that have a high degree of visual accessibility. A typical solution to isolate noise impacts from parking areas in commercial operations from residential is to construct masonry barriers and landscaping beds. The City of Cupertino's police service provider (County Sheriff) is of the opinion that a masonry wall/landscaping setback solution to attenuate noise and visual intrusion does not increase incidents of burglary for adjoining homes.

Policy 6-29: The relationship between building design and crime prevention shall be considered in the review of all developments within the City. Criteria should be developed with the assistance from the County Sheriff's Department to determine the degree to which crime prevention standards should over-ride aesthetic concerns.

Policy 6-30: Whenever and wherever possible, neighborhood parks should be encircled by a public road to provide visual accessibility.

Environmental
Resources
Policy 5-29
page 5-30

Disaster Planning

The California Emergency Services Act requires each County and City to prepare an emergency plan to respond to "war-caused" or other disasters which threaten the health, or property of its citizens. The City's emergency plan is designed primarily to establish an organizational framework to enable the City to plan its emergency response activities and to coordinate with the County and State agencies. In that regard, effective communications is one of the primary objectives of the Emergency Plan.

The Cupertino Emergency Plan

The City of Cupertino's Emergency Plan is highly dependent upon the availability of key people once a state of emergency is declared. Typically, only the City Manager, Department Heads, assistant Department Heads and a number of clerical personnel have participated in annual disaster drills. Since City Hall operates from 8 a.m. to 5 p.m., a 9 hour period, it is highly likely that an emergency will occur during non-working hours. Since a number of Cupertino employees do not live within the community, it is likely that a general emergency such as widespread earthquake would delay individuals from manning their emergency operation positions.

Policy 6-31: The Emergency Service Training Program should be broadened to include a greater number of middle management and non-management employees in future emergency training programs.

A large magnitude earthquake could isolate Cupertino citizens from major full service hospitals. Figure 6- is a segment of a map located in the County's Seismic Safety Element which identifies areas that are potentially isolated because of earthquake-related collapsed freeway crossings and bridges. City of Cupertino personnel and resident physicians will be ill-equipped to meet the emergency needs of Cupertino citizens should a major earthquake strike.

Policy 6-32: The City of Cupertino should join other local jurisdictions in Santa Clara County to lobby the State to shift the responsibility of planning and providing major emergency medical responses in urbanized areas to the state level of government.

PUBLIC HEALTH & SAFETY

6-56

The City has programmed the construction of an emergency operational center within the City Hall basement for budget year 1979-1980. Emergency diesel generator and telephone equipment had been already installed.

Policy 6-33: Permanent display system and an on-going information update process shall be incorporated in the detailed design and the operational procedures established for the emergency operation center.

Immediately following a major emergency, police, fire and medical services will be spread quite thin. It is imperative, therefore, that individual citizens within the community develop self-reliance in the form of first aid skills and the storage of food, water and other essential commodities. The last major disaster, the 1906 earthquake, occurred approximately 74 years ago. Therefore, the majority of Cupertino citizens have not experienced a major disaster.

Policy 6-34: The City shall utilize the Cupertino Scene and other means of written and verbal communication to inform residents that they have a responsibility to be prepared for emergency disaster and secondly, to provide information on how to achieve and maintain a state of self-reliance.



FIGURE 6-5

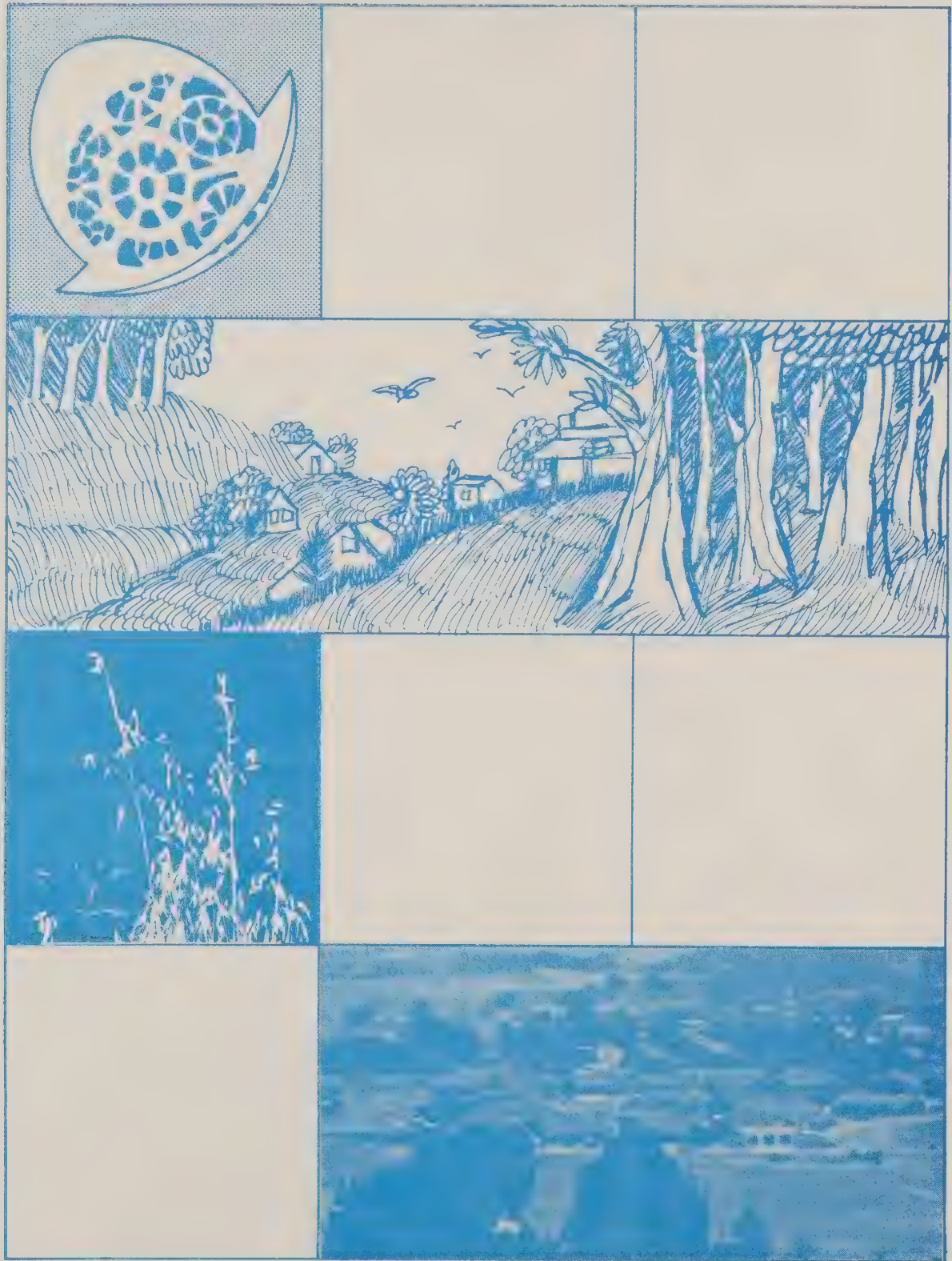
AREAS POTENTIALLY ISOLATABLE IN SEISMIC EMERGENCY

+ HOSPITALS

~ POTENTIAL BARRIERS

CITY of CUPERTINO · comprehensive plan





7

IMPLEMENTATION

The General Plan is a blue print for decisionmaking in the present as well as a plan for the future. The Plan details policies with respect to a variety of subject areas (e.g. land use, transportation, housing, health and safety, etc.) which directly or indirectly affect residents of the community. A realistic implementation strategy is essential if the objectives of the Plan, as stated in the policies, are to be realized. The following discussion focuses on some of the areas of concern with respect to provision of urban services and implementation of the City's policies.

Defining the City's Corporate Limits

The City's Urban Service Area boundary defines the projected corporate limits of the community based upon five years of new growth. The hillside area immediately south and easterly of Stevens Canyon Road is owned by the MidPeninsula Regional Open Space District, the County of Santa Clara (County Park), and the Santa Clara Valley Water District (Stevens Creek Reservoir). These properties will be maintained in an open space status and hence will define the limit of the Urban Service Area. The property located adjacent to the westerly Urban Service Area boundary is primarily under the ownership of the Kaiser Cement and Gypsum Corporation. Kaiser Cement and Gypsum intends to continue to utilize these lands as a buffer zone to isolate residents from the pouring and manufacturing processes being conducted at the plant. Due to the ownership pattern and intended use of these properties, the Plan assumes that the westerly and southerly Urban Service Area boundary will not be expanded in the foreseeable future.

Providing Urban Services

Another major assumption affecting the provision of services is that there will be no major economic changes that will significantly alter the ability of any major service provider to fulfill their function. For example, a disruption of the flow of crude oil might limit the ability of private utility companies to provide services. Finally, the Plan assumes that the present government finance mechanisms will not be limited to a point where City levels of government have severe difficulty providing essential services. There are specific areas of the community and anticipated new developments which may create problems for certain services. For instance, the Sanitary District intends to closely monitor the Town Center development as well as any major industrial expansion in terms of the sanitary sewer capacity. Also, the Circulation Section points out the need to review traffic impacts on major developments. With the above qualifications in mind, the City of Cupertino expects to maintain the current general level of service throughout the build-out of the Plan.

Government Efficiency

The recent property tax initiative and planned drive to limit government spending intensifies the need to prioritize alternatives and ensure that government is operating a high level of

IMPLEMENTATION

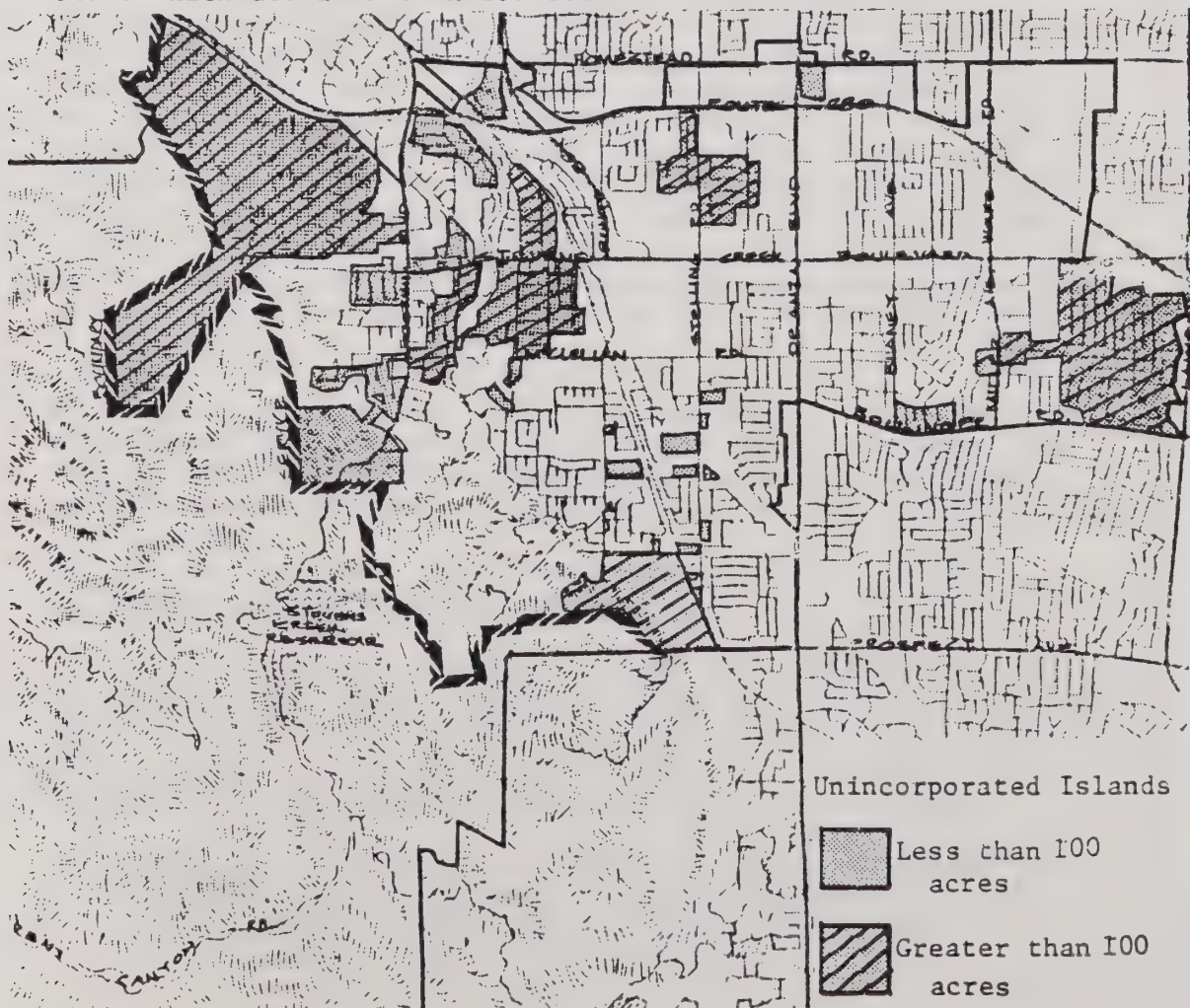
7-2

efficiency. Government efficiency, in terms of the provision of urban services in the Cupertino area, is hampered by the multiplicity of servicing districts and meandering City boundary. The San Jose boundary realignment has simplified the southern and eastern boundary. While the adjustment is expected to cost more in services than it brings in revenue, over the long term, it will provide the opportunity for potential economies of scale associated with the greater population and more compact service area.

The compactness of the remainder of the Cupertino service area is compromised to a considerable degree by the existence of unincorporated islands which are scattered throughout the City. These areas benefit greatly from the existence of the surrounding City services (e.g. street maintenance, parks, median landscaping, etc.) while they pay no property taxes nor do they actively participate in local decisions concerning these services.

Policy 7-1: The City should continue to actively pursue, under the new MORGAN legislation, incorporation of the "islands" of less than 100 acres, and encourage areas exceeding 100 acres to annex.

Said incorporation should recognize the unique character and desires of unincorporated residents in terms of street standards, etc. The following map outlines the unincorporated islands and those which are less than 100 acres.



Plan Implementation Chart

California State law requires that communities evaluate public works projects for conformity with the Plan. State law also mandates that cities consider means for putting the Plan into effect and to serve as a basis for the efficient expenditure of its funds relating to the subject areas of the General Plan

The programs of the Comprehensive Plan span the range between those which the City can directly influence to those which are almost completely out of local control. In both cases, external influences and future uncertainties complicate the job of establishing and implementing policies which will achieve the City's objectives. The assignment of implementation of the Plan is further complicated by the limitations on the use of certain revenue sources. For instance, the gas tax is ear-marked for road improvements and related matters. Even in light of these uncertainties and limitations, the choices and alternatives for the future should be evaluated.

The purpose of the implementation strategy is to outline the specific policies of the Plan which require some form of detailed implementation or future action. The Plan Implementation Chart lists the policies requiring actions along with the Capital Improvements Programs relating to park development, acquisition and street improvements. Additionally, the table lists the implementing ordinances and studies, and areas requiring future General Plan study. Each individual policy or program is charted based upon its relative importance and the action areas which it influences (i.e. capital improvements, program area or staff study, new ordinance or code and inter-agency coordination). The Plan Implementation Chart is a generalized concept of the City's priorities and is not considered as part of the policy document of the General Plan. Rather, the chart is intended to be a tool for evaluating the City's performance with respect to these program areas and the relative weight of these programs when compared to one another.

The Capital Improvements Program is the principal implementation tool of the City. At the time of review of this document, the City will utilize the Plan Implementation Chart to determine relative priorities and will modify that chart as future decisions are arrived at.

Monitoring Effectiveness of the Plan

The programs and policies listed in the Implementation Chart must be evaluated on a yearly basis to ensure that the City is on the optimum course towards realizing its objectives. Such a monitoring effort should be conducted in the context of the General Plan review which also should be conducted on an annual basis.

Policy 7-2: The General Plan shall be reviewed annually by the Planning Commission and City Council and by an ad hoc citizens' review committee every five years.

IMPLEMENTATION

7-4

PLAN IMPLEMENTATION CHART

LEGEND

HIGH PRIORITY



MEDIUM PRIORITY



LOW PRIORITY



UNPROGRAMMED



CROSS REFERENCE FORMAT

Section#-Policy#(Strategy#)

POLICY
#

DESCRIPTION

CAPITAL IMPROVEMENT
PROGRAM

PROGRAM AREA/
STAFF STUDY

ORDINANCE/
CODE

INTER-AGENCY
COORDINATION

NOTES

LAND USE/COMMUNITY CHARACTER

| | | | | | | |
|----------------|--|--|--|--|--|--|
| 2-2(2) | Link open space to surrounding neighborhood. | | | | | |
| 2-3 | Coordinate Town Center Plan/zoning. | | | | | |
| 2-4 | Zoning for historic property. | | | | | |
| 2-5(2) | Encourage Governmental agencies to locate in Town Center. | | | | | |
| 2-7 | Construct gateways at entrances to City. | | | | | |
| 2-8 2-10(2) | Implement shared driveways and inter connect parking lots on commercial sites. | | | | | |
| 2-15(2) | Pedestrian crossing pavement treatment on major arterials. | | | | | |
| 2-18 | Construct neighborhood entrance treatment. | | | | | |
| 2-25 | Prepare and adopt conceptual area land use plans - Saratoga/Sunnyvale Road, Stevens Creek Boulevard. | | | | | |







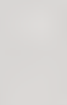











IMPLEMENTATION

7-5

| POLICY # | DESCRIPTION | CAPITAL IMPROVEMENT PROGRAM | PROGRAM AREA/ STAFF STUDY | ORDINANCE/ CODE | INTER-AGENCY COORDINATION | NOTES |
|----------------|--|----------------------------------|----------------------------------|-----------------------|------------------------------|-------|
| <u>HOUSING</u> | | | | | | |
| 3-6 | Explore methods to increase housing supply. | | <input type="radio"/> | | | |
| 3-8 | Implement BMR Program. | | <input checked="" type="radio"/> | | | |
| 3-11 | Encourage modification of State/ Federal regulations regarding assisted housing. | | <input checked="" type="radio"/> | | <input type="radio"/> | |
| 3-13 | Use HCD funds to defray development costs for projects incorporating below market housing. | | <input checked="" type="radio"/> | | | |
| 3-14 | Use HCD funds for low/moderate housing site acquisition. | <input checked="" type="radio"/> | | | | |
| 3-19 | Continue semi-annual trash pickup. | | <input checked="" type="radio"/> | | | |
| 3-20 | Continue code enforcement efforts in City and encourage similar efforts in unincorporated areas. | | <input checked="" type="radio"/> | | <input type="radio"/> | |
| 3-21 | Support formation of local improve- ment districts in residential neighborhoods when possible. | | <input type="radio"/> | | | |
| 3-24 | Consider pre-sale inspection program. | | <input type="radio"/> | | | |
| 3-25 | Encourage rehabilitation of sub- | | <input checked="" type="radio"/> | | | |
| 3-26 | standard housing and continue HCD Rehabilitation Program. | | <input checked="" type="radio"/> | | | |
| 3-27 | Disseminate information on fix-up techniques. | | <input type="radio"/> | | | |
| 3-28 | Pursue Federal and State funded rehabilitation activities. | | <input type="radio"/> | | | |
| 3-30 | Promote energy conservation | | <input type="radio"/> | <input type="radio"/> | | |
| 3-31 | Re-examine zoning ordinance to eliminate use limitations on solar energy and examine approaches to promote energy conservation. | | <input type="radio"/> | <input type="radio"/> | | |

IMPLEMENTATION

7-6

| POLICY # | DESCRIPTION | CAPITAL IMPROVEMENT PROGRAM | PROGRAM AREA/ STAFF STUDY | ORDINANCE/ CODE | INTER-AGENCY COORDINATION | NOTES |
|--|---|---|--|--------------------|---|-------|
| 3-33 | Support efforts of organizations working toward eliminating discrimination in Cupertino housing market. | |  | |  | |
| 3-34 | Discourage age discrimination in new multi-family housing. | |  | | | |
| <u>CIRCULATION</u> | | | | | | |
| 4-1 | Advocate extension of 85. (See street improvement section) |  |  | |  | |
| 4-1(2) | Support expansion of bus fleet prioritizing express routes. |  |  | |  | |
| 4-2 | Continue traffic constraint in core area. |  |  | | | |
| 4-3. <u>Complete Street Network Improvements</u> | | | | | | |
| <u>Medians</u> | | | | | | |
| South De Anza Boulevard to Bollinger Road. | |  | | | | |
| Miller Avenue. | |  | | | | |
| Stevens Creek Boulevard. | |  | | | | |
| Stelling Road (Stevens Creek Boulevard to Alves). | |  | | | | |
| Foothill Boulevard. | |  | | | | |
| Finch Avenue. | |  | | | | |
| <u>Street Improvements</u> | | | | | | |
| Stevens Creek Boulevard railroad grade crossing project - Monta Vista. | |  | | | | |

















IMPLEMENTATION

7-7

| POLICY # | DESCRIPTION | CAPITAL IMPROVEMENT PROGRAM | PROGRAM AREA/ STAFF STUDY | ORDINANCE/ CODE | INTER-AGENCY COORDINATION | NOTES |
|-------------|--|----------------------------------|----------------------------------|--------------------|------------------------------|-------|
| | Foothill Boulevard/Stevens Creek Boulevard intersection improvements. | <input checked="" type="radio"/> | | | | |
| | Stevens Creek Boulevard Plan Line right of way acquisition. | <input type="radio"/> | | | | |
| | Stevens Creek Boulevard Plan Line widening and bridge improvements. | <input type="radio"/> | | | | |
| | McClellan Road improvements. | <input type="radio"/> | | | | |
| | Orange/Mann intersection improvements. | <input type="radio"/> | | | | |
| | Saratoga/Sunnyvale Road widening south of Rainbow. | <input type="radio"/> | | | | |
| | Foothill Boulevard improvements at Poppy Drive. | <input type="radio"/> | | | | |
| | Stelling Road widening. | <input checked="" type="radio"/> | | | | |
| | Bollinger Road extension. | <input type="radio"/> | <input checked="" type="radio"/> | | | |
| | Miscellaneous signal modifications. | <input checked="" type="radio"/> | | | | |
| | Signal interconnect system De Anza Boulevard | <input checked="" type="radio"/> | | | | |
| | Mary Avenue overpass Phase 1 - Pedestrian and bicycles Phase 2 - Vehicular | <input type="radio"/> | | | | |
| | De Anza Boulevard 280 overcross widening | <input type="radio"/> | | | | |
| | West Valley Corridor extension. | <input checked="" type="radio"/> | | | | |



















IMPLEMENTATION

7-8

| POLICY # | DESCRIPTION | CAPITAL IMPROVEMENT PROGRAM | PROGRAM AREA/STAFF STUDY | ORDINANCE/ CODE | INTER-AGENCY COORDINATION | NOTES |
|--------------------------------|--|---|--|-----------------|---|-------|
| 4-8(1,2) | Encourage alternatives to the automobile - provide space to accommodate alternatives on the street system. |  |  | |  | |
| 4-9 | Plan and provide a comprehensive system of trails and pathways consistent with regional plans. |  |  | |  | |
| 4-10 | Protect community from noise, fumes, hazards of the transportation system. |  |  | |  | |
| 4-11 | Protect neighborhood streets from intrusion of through or commute traffic. | |  | | | |
| 4-12 | Study and implement techniques to discourage abusive driving on local neighborhood streets. | |  | | | |
| <u>ENVIRONMENTAL RESOURCES</u> | | | | | | |
| 5-6 | Investigate feasibility of more fuel efficient City vehicles. | |  | | | |
| 5-15 | Investigate use of abandoned quarry for recreational purposes. | |  | | | |
| 5-16 | Support the Santa Clara Valley Water District use of ground water recharge sites. | | | |  | |
| 5-19 | Encourage County to amend General Plan to reflect RHS-20 zoning designation. | | | |  | |
| 5-20 | Encourage County to reaffirm goal connecting upper and lower Stevens Creek County Park. | | | |  | |

IMPLEMENTATION

7-9

| POLICY # | DESCRIPTION | CAPITAL IMPROVEMENT PROGRAM | PROGRAM AREA/STAFF STUDY | ORDINANCE/ CODE | INTER-AGENCY COORDINATION | NOTES |
|-------------------------|---|---|--|-----------------|---|-------|
| 5-21 | Retain Stevens Creek Reservoir in public ownership. | |  | |  | |
| 5-22 | Encourage public acquisition of lands in proximity to the western Urban Service Area line. | | | |  | |
| 5-23 | Encourage continuation of private recreational/open space facilities. | |  | |  | |
| 5-24 | Provide 3 acres per 1,000 persons of park land within 1/2 mile of each household and community. |  | | | | |
| <u>Park Development</u> | | | | | | |
| | Varian Park. |  | | | | |
| | Monta Vista Park. |  | | | | |
| | Memorial Park. |  | | | | |
| | Three Oaks Park. |  | | | | |
| | Wilson Park |  | | | | |
| <u>Acquisition</u> | | | | | | |
| | Varian Expansion. (By gift only) |  | | | | |
| | Regnart/Hoover school sites |  | | | | |
| | Sedgewick School. |  | | | | |
| | Jollyman School |  | | | | |
| | Town Center. |  | | | | |
| | Stelling Park. |  | | | | |
| | Seven Springs Ranch Park by dedication |  | | | | |

Completed

IMPLEMENTATION

7-10

| POLICY # | DESCRIPTION | CAPITAL IMPROVEMENT PROGRAM | PROGRAM AREA/STAFF STUDY | ORDINANCE/ CODE | INTER-AGENCY COORDINATION | NOTES |
|---------------------------------|--|-----------------------------|--------------------------|-----------------|---------------------------|-------|
| <u>PUBLIC HEALTH AND SAFETY</u> | | | | | | |
| <u>Seismic Safety</u> | | | | | | |
| 6-2 | Evaluate City facilities with respect to geologic hazards. | | | | | |
| 6-2(1) | Modify critical City facilities to ensure that they remain functional in the event of an earthquake. | | | | | |
| 6-3 | Adopt program informing residents of means to reduce geologic risk. | | | | | |
| 6-3(3) | Provide emergency operation center. | | | | | |
| <u>Fire Hazards</u> | | | | | | |
| 6-4 | Encourage Santa Clara County to implement policies in the County Public Safety Element: | | | | | |
| 6-5 | Encourage County and the Mid-Peninsula Regional Open Space District to continue fuel management efforts in the hillsides. | | | | | |
| 6-6 | Encourage MidPeninsula Regional Open Space District to consider agricultural uses for open space lands to reduce fire risks. | | | | | |
| 6-7 | Prepare a master fire plan. | | | | | |
| <u>Flood Hazards</u> | | | | | | |
| 6-8 | Adopt stringent land use and building codes to prevent new construction in flood hazard area. | | | | | |







IMPLEMENTATION

7-11

| POLICY # | DESCRIPTION | CAPITAL IMPROVEMENT PROGRAM | PROGRAM AREA/ STAFF STUDY | ORDINANCE/ CODE | INTER-AGENCY COORDINATION | NOTES |
|----------|--|-----------------------------|----------------------------------|----------------------------------|----------------------------------|------------------|
| 6-11 | Evaluate structural integrity of municipal water storage facilities. | | <input type="radio"/> | | | |
| | <u>Noise</u> | | <input checked="" type="radio"/> | | <input type="radio"/> | |
| 6-14 | Support enactment of strict State legislation governing vehicular noise emissions and enforce existing laws. | | <input checked="" type="radio"/> | | <input type="radio"/> | |
| 6-17 | Work toward improving noise environment along Foothill Boulevard. | | <input checked="" type="radio"/> | | <input checked="" type="radio"/> | |
| 6-20 | Enforce limitation on delivery hours for commercial vehicles. | | | <input checked="" type="radio"/> | | |
| 6-23 | Adopt a Comprehensive Noise Ordinance. | | <input checked="" type="radio"/> | <input checked="" type="radio"/> | | <u>Completed</u> |
| | <u>Crime</u> | | <input type="radio"/> | | <input type="radio"/> | |
| 6-25 | Determine Criteria for incorporating crime prevention standards into project design. | | <input type="radio"/> | | <input type="radio"/> | |
| | <u>Disaster Planning</u> | | <input type="radio"/> | | <input type="radio"/> | |
| 6-28 | Lobby State to augment disaster planning to include emergency medical response in urban areas. | | <input type="radio"/> | | <input checked="" type="radio"/> | |
| 6-30 | Inform residents regarding disaster planning. | | <input checked="" type="radio"/> | | | |

IMPLEMENTATION

7-12

| POLICY # | DESCRIPTION | CAPITAL IMPROVEMENT PROGRAM | PROGRAM AREA/ STAFF STUDY | ORDINANCE/ CODE | INTER-AGENCY COORDINATION | NOTES |
|--|--|--------------------------------|---|--------------------|------------------------------|-------|
| <u>IMPLEMENTING ORDINANCES AND STUDIES</u> | | | | | | |
| | Grading Ordinance. | |  | | | |
| | Subdivision Ordinance. | |  | | | |
| | Comprehensive Parking Ordinance. | |  | | | |
| | Zoning consistency with the General Plan. | |  | | | |
| <u>AREAS REQUIRING ADDITIONAL GENERAL PLAN STUDY</u> | | | | | | |
| | Energy conservation. | |  | | | |
| | Historical resources. | |  | | | |

GENERAL PLAN RESOLUTIONS

| YEAR | SUBJECT | CC RES. | DATE | PC RES. | DATE |
|------|---|---------|----------|---------|------------|
| 1964 | General Plan Document | 906 | 2-26-64 | 183 | 1-27-64 |
| 1969 | Monta Vista | 1766 | 3-31-69 | 620 | 3-10-69 |
| 1972 | Housing Element | 3206 | 2-7-72 | 1074 | 6-12-72 |
| 1972 | Crossroads/Core Area | 3239 | 3-20-72 | 1031 | 2-14-72 |
| 1972 | Open Space/Conservation | 3345 | 9-18-72 | 1098 | 8-25-72 |
| 1972 | Core Area Land Use | 3592 | 12-19-73 | 1183 | 7-13-73 |
| 1974 | Adm. Core Area | 3744 | 9-16-74 | 1336 | 8-26-74 |
| 1974 | Valley Floor Infilling | 3747 | 10-7-74 | 1347 | 9-23-74 |
| 1974 | St. Ck. Flood Plain | 3815 | 1-6-75 | 1379 | 12-18-74 |
| 1975 | Mariani (4 Phase) | -- | 12-14-76 | 1500 | 2-23-76 |
| 1976 | Vallco Park Area | 4097 | 1-5-76 | 1484 | 12-22-75 |
| 1976 | Hill Area G.P. | 4192 | 6-22-76 | 1548 | 6-22-76 |
| 1977 | Hillside Sewage Improvements | 4516 | -- | 1705 | 6-27-77 |
| 1977 | Policy Land Use | 4607 | 12-19-77 | 1764 | 11-14-77 |
| 1978 | Old Monta Vista/ St. Ck. | 4645 | 2-21-78 | 1795 | 11-28-77 |
| 1978 | Land Use | 4758 | 8-8-78 | 1851 | 6-26-78 |
| 1979 | GP to Comprehensive Plan Adm. of Elements | 5046 | 7-2-79 | 1948 | 6-26-79 |
| 1980 | Adm. St. Ck Blvd. Plan | 5273 | 4-11-80 | 2051 | 3-24-80 |
| 1980 | Adm. Land Use Elm. | 5325 | 7-7-80 | 2091 | 6-9-80 |
| 1980 | Adm. Rezoning F&G | 5566 | 2-23-81 | -- | (Tie vote) |

GENERAL PLAN RESOLUTIONS (continued)

| YEAR | SUBJECT | CC RES. | DATE | PC RES. | DATE |
|------|------------------------------------|---------|---------|---------|---------|
| 1981 | Housing Element Amendment | 5724 | 9/29/81 | 2241 | 9/14/81 |
| 1982 | Town Center Area 4 Amendment | 5817 | 2/16/82 | 2276 | 1/11/82 |

CITY OF CUPERTINO

CITY COUNCIL

July 1979

Robert A. Meyers - Mayor
Daniel O'Keefe - Vice Mayor
James E. Jackson
W. Reed Sparks
Barbara A. Rogers

PLANNING COMMISSION

July 1979

John M. Gatto - Chairman
R.D. Koenitzer - Vice Chairman
Sharon Blaine
Victor J. Adams
John Claudy

CITY MANAGER

Robert W. Quinlan

PLANNING DEPARTMENT

James H. Sisk - Director
Robert S. Cowan - Assistant Director
Steve Piasecki - Associate Planner
Toby Kramer - Assistant Planner
Mark Caughey - Assistant Planner
Sue Hastings - Housing Rehabilitation Counselor
Tom J. Gilbertson - Graphics
Linda J. Prat - Graphics
Peggy Crissman - Department Secretary

PUBLIC WORKS DEPARTMENT

Bert J. Viskovich - Director
Travice Whitten - Assistant Director
Glenn Grigg - Traffic Engineer

CONSULTANTS

William R. Cotton - Geologic Consultant
Donald K. Goodrich - Transportation Engineer

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